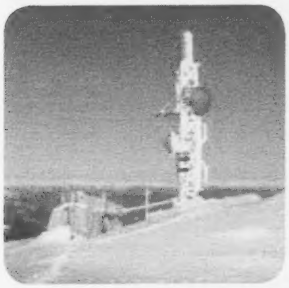
Fisheries and Oceans Canada
Canadian Coast Guard

Pêches et Océans Canada
Garde côtière canadienne

CANADIAN COAST GUARD
BUSINESS PLAN
2011–2014

1962 - 2012
50
Canadian Coast Guard

An honoured past, a committed future



Canada

Published by:
Integrated Business Management Services
Fisheries and Oceans Canada
Ottawa, Ontario
K1A 0E6

Canadian Coast Guard - Business Plan 2011–2014
Available on the Web:
www.ccg-gcc.gc.ca

Également disponible en français.

DFO/2011-1641
Cat. No. Fs151-12/2011
ISSN 1917-3792 (Print)
Cat. No. Fs151-12/2011E-PDF
ISSN 1924-6005 (Online)

© Her Majesty the Queen in Right of Canada 2011

CANADIAN COAST GUARD

BUSINESS PLAN

2011–2014

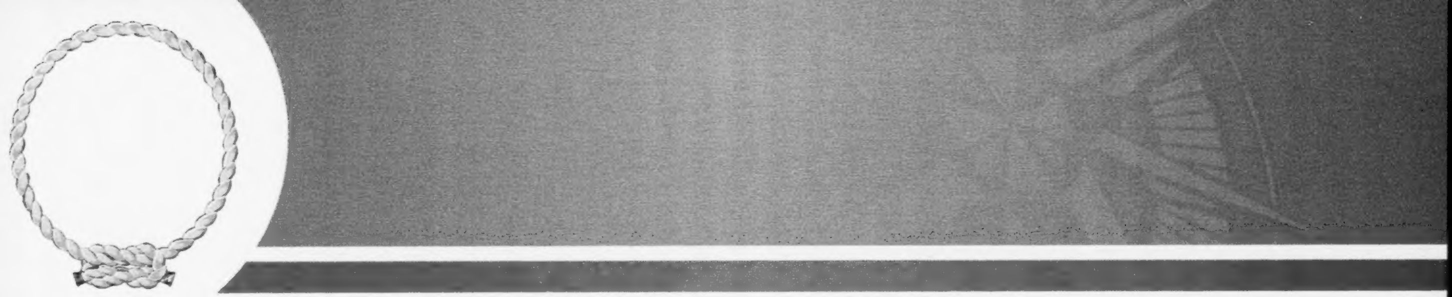


TABLE OF CONTENTS

Message from the Commissioner v

Introduction vii

Canadian Coast Guard History viii

SECTION ONE: WHO WE ARE AND WHAT WE DO 1

- **Legal Mandate 1**
- **Who We Serve and What We Do 2**
- **How We Are Structured and Managed 3**
- **External Advisory Groups 5**
- **Where we fit 6**
- Coast Guard, Clients and Stakeholders and the Government of Canada 6

SECTION TWO: WHERE WE ARE NOW ... 7

SECTION THREE: PRIORITIES 11

- **Strategic Priorities 12**
- 1. Asset Renewal 12
  - A. Coast Guard's Fleet Renewal Initiatives 13
  - B. Coast Guard's Short-Based Asset Renewal Initiative 17
  - C. Improve Asset Maintenance 17
- 2. The Arctic 19
- 3. Environmental Response 22
- 4. Maritime Security 24
- 5. E-Navigation 25
- **Management Priorities 26**
- 1. Workforce Management 26
  - A Qualified and Representative Workforce 26
  - Develop and Support People 28
  - Fair and Effective Management 30
- 2. Consistent Business Management Practices 32
  - Modernization of the Business Management and Resource Allocation Process 32
  - Service Level Agreements with DFO Clients 32
  - Stronger Canadian Coast Guard Identity ... 33
- 3. Strategic Program Framework for CCG's Maritime Servies 34
- 4. CCG 50TH Anniversary 34

SECTION FOUR: REGIONAL PERSPECTIVE 35

- **Overview 35**
- **Key Initiatives 37**
- Newfoundland and Labrador 37
- Maritimes 38
- Quebec 38
- Central and Arctic 39
- Pacific 39

SECTION FIVE: WHAT WE DO EVERY DAY 41

Overview of Financial and Human Resources 41

Services By Program Activity and Program Sub-Activity 44

Aids to Navigation 44
- What we do… 44
- The Aids to Navigation program is delivered by… 44
- Who we serve… 45
- Looking forward… 45
- Reinvestment in the asset base 47

Waterways Management 48
- What we do… 48
- The Waterways Management program is delivered by… 50
- Who we serve… 50
- Looking forward… 50
- Key initiative 52
- Reinvestment in the asset base 52

Marine Communications and Traffic Services 53
- What we do… 53
- The Marine Communications and Traffic Services program is delivered by… 53
- Who we serve… 54
- Looking forward… 54
- Key initiatives 57
- Reinvestment in the asset base 57

Icebreaking Services 58
- What we do… 58
- The Icebreaking Services program is delivered by… 58
- Who we serve… 59
- Looking forward… 59

Search and Rescue Services 61
- What we do… 61
- The Search and Rescue program is delivered by… 61
- Who we serve… 62
- Looking forward… 62
- Canadian Coast Guard Auxiliary 64
- Key initiatives 65

Environmental Response Services 67
- What we do… 67
- The Environmental Response program is delivered by… 68
- Who we serve… 68
- Looking forward… 69
- Key initiative 70
- Reinvestment in the asset base 70

Maritime Security 71
- What we do… 71
- Looking forward… 72
- Key Initiatives 73
- Reinvestment in the asset base 75

Fleet Operational Readiness 76
  What we do... 76
  The Fleet Operational Readiness program is delivered by... 77
  Who we serve... 77
  Looking forward... 79
  Fleet operational capability 80
  Key initiatives 81
  Fleet maintenance 82
  Key initiatives 83
  Fleet procurement 83
  Reinvestment in the fleet asset base 83
Shore-Based Asset Readiness (Previously Lifecycle Asset Management Services) 84
  What we do... 84
  The Shore-based Asset Readiness program is delivered by... 84
  Who we serve... 84
  Looking forward... 85
  Key initiatives 86
  Reinvestment in the asset base 88
Canadian Coast Guard College 89
  Key Initiatives 90
International Activities 92

SECTION SIX: FINANCIAL INFORMATION 94
  Status of Financial Management Initiatives in the Coast Guard 94
  Operating Environment 94
  Assets and Liabilities 95
  Impact of Recent Funding Injections 96
  Conclusion 97

ANNEX A: CCG CAPITAL EXPENDITURES 102

ANNEX B: RESEARCH AND DEVELOPMENT PROGRAM 104

ANNEX C: CCG PROGRAM ACTIVITY ARCHITECTURE 105

ANNEX D: AUDITOR GENERAL'S RECOMMENDATIONS (2000 AND 2002): CROSSWALK TO 2011-2012 BUSINESS PLAN COMMITMENTS 106
Auditor General's Recommendations – 2000 107
Auditor General's Recommendations – 2002 109

ANNEX E: MANAGEMENT AGENDA 111
List of Acronyms 113
Index 116

LIST OF TABLES

Table 1: CCG Planned Spending by Program Activity 41

Table 2: CCG Service Costs by Program Activity, 2011-2012 42

Table 3: Total Number of CCG Full-time Equivalents (FTEs) – Utilization by Program Activity 42

Table 4: Aids to Navigation Resource Profile, 2011-2012 47

Table 5: Waterways Management Services Resource Profile, 2011-2012 51

Table 6: Marine Communications and Traffic Services Resource Profile, 2011-2012 56

Table 7: Icebreaking Services Resource Profile, 2011-2012 60

Table 8: Search and Rescue Services Resource Profile, 2011-2012 65

Table 9: Environmental Response Services Resource Profile, 2011-2012 70

Table 10: Maritimes Security Resource Profile, 2011-2012 73

Table 11: Fleet Operational Readiness Resource Profile, 2011-2012 81

Table 12: Shore-Based Asset Readiness Resource Profile, 2011-2012 85

Table 13: Number of Cadets at the Canadian Coast Guard College 90

Table 14: Financial Allocations by Region, 2011-2012 90

Table 15: CCG Derivation of 2011-2012 Budget Allocation 97

Table 16: CCG Vote 1 and Vote 5 Lower Level Budget Allocations 98

Table 17: Financial Allocations by Program Activity, 2011-2012 98

Table 18: Financial Allocations by Region, 2011-2012 99

Table 19: Financial Allocation by Program Activity by Region, 2011-2012 99

Table 20: National Programs by Program Activity, 2011-2012 100

Table 21: CCG Vote-Netted Revenue Targets by Program Activity, 2011-2012 100

Table 22: CCG Major Capital Budget and Planned Expenditure – Overview 101

LIST OF FIGURES

Figure 1: CCG Management Structure 4

Figure 2: Financial Allocations by Region, 2011-2012 43

Figure 3: Planned Service by Program 2011-2012 (in operational days and scheduled maintenance days) 78

Figure 4: Distribution of Planned Vessel Costs by Client 2011-2012 79

Figure 5: National Distribution of Vessels and Helicopters 2011-2012 80

MESSAGE FROM THE COMMISSIONER

For the past 50 years, the Canadian Coast Guard (CCG) has been a symbol of service and safety. The women and men we call our own have not only provided years of excellence in service delivery, but have embodied the ideals the Coast Guard has come to represent.

As we are set to celebrate our 50th Anniversary in 2012, we are planning a series of events to honour our contributions to Canada as a maritime nation. However, as we celebrate our past, we must also consider our future. Greater demands for our services, a changing climate in the Arctic, advancements in technology and expectations for a greater presence in the North have set the tone for what we must strive to become.

Following significant investments in the maintenance and renewal of our seagoing assets, the CCG has entered a period of fiscal restraint. The recent Speech from the Throne announced that the Government of Canada will continue to focus on jobs and growth while working to eliminate the deficit. In today's economic climate, the CCG must think and operate more strategically, look for better ways of delivering its services effectively and cost-efficiently and examine whether technology can provide new options for its traditional ways.

I am very pleased to present the CCG's *2011–2014 Business Plan* which outlines our direction for the next three years. We will focus on the following strategic and management priorities that go to the heart of our ability to serve Canadians. The strategic priorities are *Asset Renewal; The Arctic; Environmental Response; Maritime Security*; and *e-navigation.*

We will also focus on the following management priorities: *Workforce Management; Consistent Business Management Practices; Strategic Program Framework;* and *CCG's 50th Anniversary.*

Through these priorities, the CCG will work to ensure that we have sustainable on-water and shore-based operational capabilities, continue to support the advancement of the government's Northern Strategy and strengthen our Environmental Response program. In addition, we must consider the implications of an organizational shift from a maritime safety orientation to a culture that is influenced by both safety and national security perspectives. We will also make use of innovation and technology through the implementation of e-navigation which will reduce cost and deliver a service that is greatly in demand. Recognizing that the strength of the Coast Guard is its dedicated and professional workforce, we will continue to invest in our people. In this time of fiscal restraint, the modernization of our business management and resource allocation processes will ensure that available resources are monitored and reallocated, as warranted, to the priorities of the organization.

Along with the Integrated Investment Plan and Strategic Human Resources Plan, our new Business Plan will help us to stay the course while we ready ourselves to meet the challenges of a changing operating environment. We look forward to the opportunities the future will bring, but will remain anchored to our past as we continue our proud and noble tradition of service excellence.

Marc Grégoire

Marc Grégoire
Commissioner, Canadian Coast Guard

Photo: Troy Mercer

INTRODUCTION

The Canadian Coast Guard (CCG) developed this comprehensive, integrated Business Plan to set out, in one place, its priorities and operational activities. It is an expanded version of the CCG material in the Report on Plans and Priorities for Fisheries and Oceans Canada (DFO) that is tabled in Parliament every year.

VISION

Through innovation and excellence, a recognized leader in maritime services and safety.

MISSION

Canadian Coast Guard services support government priorities and economic prosperity and contribute to the safety, accessibility and security of Canadian waters.

ORGANIZATIONAL VALUES

- ✔ Teamwork
- ✔ Professionalism
- ✔ Integrity
- ✔ Quality service
- ✔ Innovation

The Business Plan covers a three-year period and is updated annually. A number of the initiatives and commitments described in this Business Plan are responses to reviews and reports. For this reason, we have used acronyms to highlight the commitments related to our 2006 A-Base Review (A-Base), the 2007 Report of the Auditor General (AG), the DFO 2008– 2011 Employment Equity Management Action Plan (DFO EE Map), the 2010 Commissioner of the Environment and Sustainable Development (CESD) audit and the findings of the Public Service Employee Survey (PSES) conducted in 2008.

The Business Plan is divided into six sections:

1. **"Who We Are and What We Do"** sets out our mandate, our clients, the way we are structured and managed, the general results we seek to achieve, and the way our activities link to the work of other government departments.
2. **"Where We Are Now"** summarizes our operating environment, with the associated impacts and risks.
3. **"Priorities"** sets out our strategic and management priorities.
4. **"Regional Perspective"** describes region-specific activities.
5. **"What We Do Every Day"** describes our operational activities and ongoing services.
6. **"Financial Information"** sets out how we have allocated the funding provided by Parliament.

In addition, there are a number of annexes, including ones that provide information on our capital expenditures and the way we are responding to various recommendations from the Auditor General's Report (2007).

There are two progress reports on Business Plan commitments each year: one at mid-year and one at the end of the fiscal year. These progress reports are publicly available and are posted on the Coast Guard website.

Other information about CCG activities can be found in the Strategic Human Resources Plan, the Integrated Investment Plan, and the Fleet Annual Report. These reports are also available, along with the Business Plan, on the Coast Guard website http://www.ccg-gcc.gc.ca/eng/CCG/Publications.

CANADIAN COAST GUARD HISTORY

1962 - 2012

Canadian Coast Guard
An honoured past, a committed future

The first lifeboat and lighthouses in Canada were established on the east coast during the 1700s. In response to an urgent need for protection and regulation of fishing and shipping, patrol vessels appeared along the eastern seaboard and in the Great Lakes region during the 1800s.

At Confederation in 1867, the federal government assumed responsibility for marine affairs including the operation of government vessels (naval services) and for various elements of marine infrastructure, including:

- Aids to navigation;
- Lifesaving stations;
- Canals and waterways;
- Marine regulatory bodies; and
- Supporting shore infrastructure.

The Department of Marine and Fisheries was established in 1868 to discharge the federal marine mandate. In 1910, the Naval Service of Canada, precursor to the Canadian Navy, was established from a portion of the departmental fleet. Marine and Fisheries became two separate departments in 1930 and, in 1936, responsibility for marine transportation shifted to the new Department of Transport (DOT).

The DOT maintained a fleet of 241 vessels that has subsequently evolved into the CCG fleet. This fleet had a number of missions that now fall within Coast Guard's mandate, including the supply and maintenance of aids to navigation, icebreaking, and maritime search and rescue.

Starting in the 1940s, many organizations and communities pressed the government to form a national coast guard. The Canadian Coast Guard was officially created on January 26, 1962. The establishment of the Canadian Coast Guard College followed in 1965 in Cape Breton, Nova Scotia, to train men and women for service in CCG.

The federal government has restructured Coast Guard twice since 1962:

- With the 1995 merger of CCG into the Department of Fisheries and Oceans (DFO), DFO Science vessels and the Fisheries Conservation and Protection fleet were incorporated into a single Coast Guard fleet. The merger facilitated a more efficient multi-tasking of vessels allowing a reduction in the size of the newly combined fleet.
- In 2005, CCG was granted Special Operating Agency (SOA) status within DFO which affirmed the Canadian Coast Guard as a national institution and emphasized its essential role in providing maritime services required by users of Canadian waterways. It also confirmed Coast Guard as the operator of the government's civilian fleet in support of programs within DFO and in other government departments.

In 2012 CCG will celebrate its Golden Jubilee – 50 years of service to Canadians.

SECTION ONE: WHO WE ARE AND WHAT WE DO

1

The Canadian Coast Guard has a direct and important impact on the lives of Canadians. We help ensure the safe use of Canadian waterways, and we facilitate the smooth functioning of the Canadian economy.

A nationally recognized symbol of safety, Coast Guard serves on three oceans, the St. Lawrence River and Great Lakes, and other major waterways. Often CCG is the only federal presence in many remote, Aboriginal, and Arctic communities. Operating along the longest coastline in the world and in some of its most difficult weather conditions, CCG operates 24 hours a day, every day of the year (for information on what we do every day, please refer to Section 5 on page 41).

LEGAL MANDATE

Coast Guard's mandate derives from the *Constitution Act, 1867*, which assigned exclusive legislative authority over navigation, shipping, beacons, buoys, lighthouses, and Sable Island to the Government of Canada.

The *Oceans Act* gives the Minister of Fisheries and Oceans responsibility for services for the safe, economical, and efficient movement of ships in Canadian waters through the provision of aids to navigation, marine communications and traffic management services, icebreaking and ice management services, and channel maintenance.

The *Oceans Act* also gives the Minister responsibility for the marine component of the federal search and rescue program, marine pollution response, and support to other government departments, boards, and agencies through the provision of ships, aircraft, and other services. The *Canada Shipping Act, 2001* gives the Minister of Fisheries and Oceans responsibilities, powers, and obligations with respect to aids to navigation, Sable Island, search and rescue, pollution response, and vessel traffic services.

Under the *Arctic Waters Pollution Prevention Act* (AWPPA), a Ministerial Order may be signed for and issued on behalf of the Governor-in-Council by the Minister of Transport, to provide support and visible written authority for actions taken on their behalf by a designated On-scene Commander of an Arctic spill incident. Subject to regulations under AWPPA and to applicable inter-agency agreements, the Canadian Coast Guard has lead federal response-agency responsibility for ensuring responses for all ship-source spills and mystery-source pollution spills in waters under Canadian jurisdiction that may occur, for example, as a result of loading or unloading to or from ships or oil-handling facilities.

WHO WE SERVE AND WHAT WE DO

Operating as Canada's only national civilian fleet, we provide a wide variety of programs and services to Canadians on four equally important levels: delivering CCG's own programs; supporting Fisheries and Oceans Canada (DFO) programs; supporting other government departments; and supporting government decisions, priorities and the broader federal agenda.

ON AN AVERAGE DAY, CCG:

- Saves 10 lives;
- Assists 58 people in 26 search and rescue cases;
- Services 55 aids to navigation;
- Handles 1,547 marine radio contacts;
- Manages 2,325 commercial ship movements;
- Escorts 4 commercial ships through ice during the ice season;
- Carries out 11 fisheries patrols;
- Supports 3 hydrographic missions;
- Supports 8 scientific surveys;
- Deals with 3 reported pollution events; and
- Surveys 5 kilometres of navigation channel bottom.

CCG plays a critical role in the lives of Canadians by operating along the single longest coastline in the world, the Great Lakes, the St. Lawrence Seaway system, and the Mackenzie River. We provide services to commercial shippers, ferry operators, fishers, recreational boaters, ports, coastal communities, other federal government departments and the general public. For example:

- We are mission-ready 24 hours a day, 7 days a week and operate in almost all conditions. When extreme weather hits and other vessels are being called into port, Coast Guard vessels are often asked to head out to sea to save lives, to break ice to free trapped vessels, or to provide whatever assistance is needed to enable safe passage.
- We are a visible symbol of federal presence and provide the capacity to assert Canadian sovereignty, especially in the Arctic.
- We support on water safety and security by responding to mariners in distress, disasters and emergencies with one of the most effective maritime search and rescue systems in the world, supported by the air assets of the Canadian Forces and the volunteers of the Canadian Coast Guard Auxiliary.
- We contribute to Canada's overall economic prosperity by providing essential support for our country's $190 billion global and domestic marine trade industry.[1] For instance, we maintain and service fixed and floating aids to navigation that mark safe passages through our waterways. We also provide essential icebreaking services that enable ships to move safely and efficiently through ice-covered waters in Eastern Canada and the Great Lakes throughout the winter, and in the Arctic during much of the Northern navigable season. Icebreaking services keep most Canadian ports, especially Montreal, open for business year-round, prevent flooding along the St. Lawrence River, and support ferry operators, fishers, and coastal communities.
- We are the lead federal agency for ensuring responses to all ship-source and mystery-source pollution spills in waters over which Canada has jurisdiction, with enhanced responsibilities in the Arctic.

---

1. *Source: Transport Canada 2010 Report, Committed to Marine Safety, Security, Trade and the Environment*

- We support science activities by providing platforms for scientists from DFO and other federal government departments such as Environment Canada, Natural Resources Canada and the Natural Sciences and Engineering Research Council of Canada. We facilitate important scientific activities and research such as science surveys essential for determining biomass and stock assessments leading to fisheries allocations; charting to enable safe navigation; freshwater research in the Great Lakes; seabed mapping to help establish Canada's claims under the United Nations Convention on the Law of the Sea; and research to assess the changing ocean conditions and the impacts of climate change.
- We support the security and enforcement activities of DFO with vessels dedicated primarily to fisheries enforcement to ensure an orderly and sustainable fishery that complies with fisheries regulations. We also support the maritime security activities of the Royal Canadian Mounted Police (RCMP) by participating in joint programs on the Great Lakes and St. Lawrence Seaway, as well as maritime security activities of the Department of National Defence, the Canada Border Services Agency, and Public Safety Canada.
- We support the non-military activities of other Canadian government departments including those of the Department of Foreign Affairs and International Trade, Health Canada, and Transport Canada.

HOW WE ARE STRUCTURED AND MANAGED

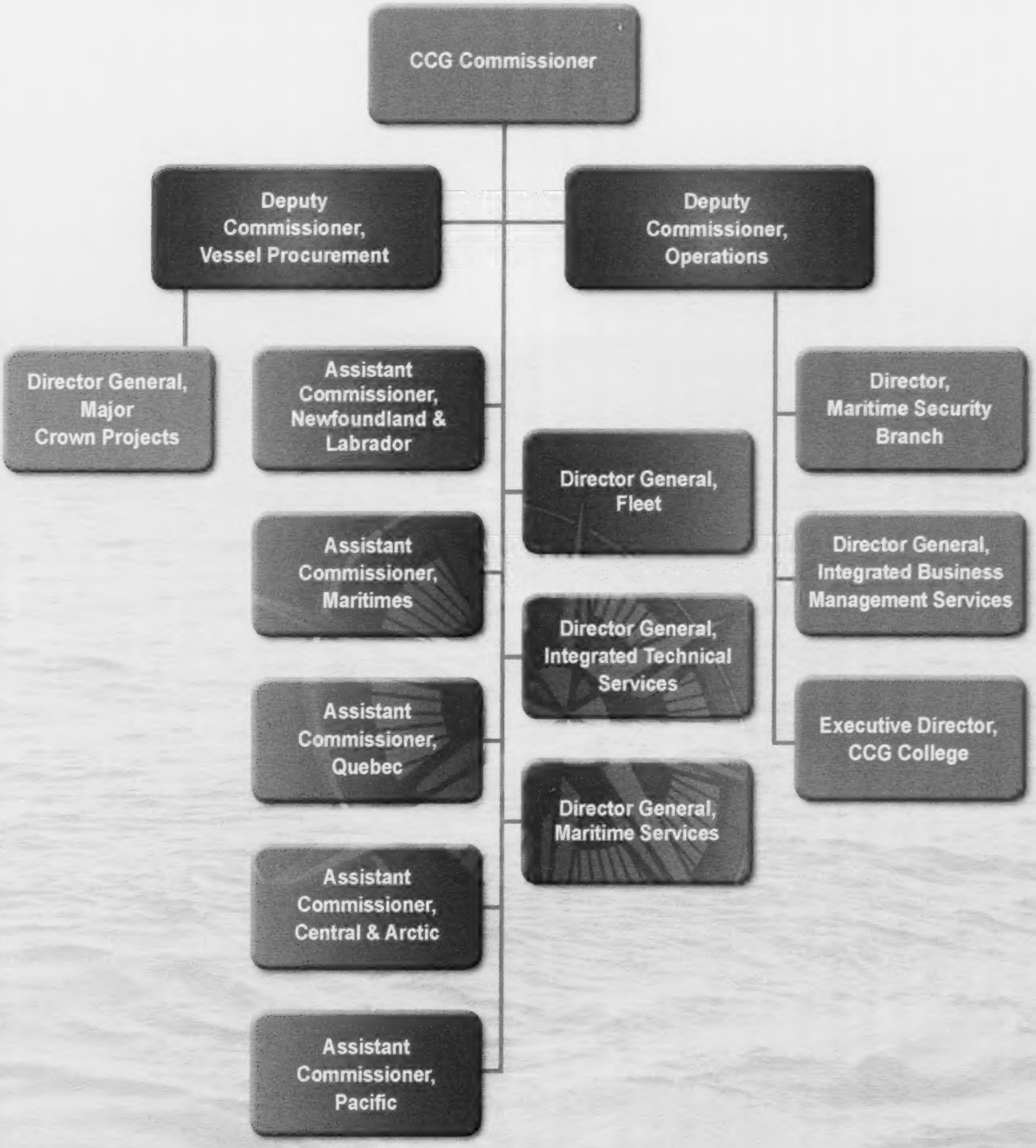
The Canadian Coast Guard is a national agency with its headquarters in Ottawa (the National Capital Region) and five regional offices (Newfoundland and Labrador, Maritimes, Quebec, Central and Arctic, and Pacific). CCG is a highly decentralized organization, and the vast majority of its employees are located outside the National Capital Region.

The Commissioner is the Chief Executive Officer of the Agency, reporting and accountable to the Deputy Minister of Fisheries and Oceans Canada for the performance of the Coast Guard. The Commissioner has the full authority of an Associate Deputy Minister, with the exception of Section 33 of the *Financial Administration Act*, reflecting the intention of the Coast Guard to rely on DFO for comptroller functions. The Coast Guard has two Deputy Commissioners, both of whom report to the Commissioner: the Deputy Commissioner, Operations and the Deputy Commissioner, Vessel Procurement.

At Headquarters, there are five directorates (Maritime Services, Fleet, Integrated Technical Services, Integrated Business Management Services, and Major Crown Projects), each led by a Director General (DG) who is responsible for policies, programs, plans, and service standards for their respective functional areas. Each of the five regions is led by an Assistant Commissioner (AC) who is responsible for directing the delivery of all Coast Guard services in the region under their responsibility, consistent with national standards, policies and practices.

This organization and governance information is shown in Figure 1 on the following page.

Figure 1: CCG Management Structure


CCG Commissioner
Deputy Commissioner, Vessel Procurement
Deputy Commissioner, Operations
Director General, Major Crown Projects
Assistant Commissioner, Newfoundland & Labrador
Director General, Fleet
Assistant Commissioner, Maritimes
Director General, Integrated Technical Services
Assistant Commissioner, Quebec
Director General, Maritime Services
Assistant Commissioner, Central & Arctic
Assistant Commissioner, Pacific
Director, Maritime Security Branch
Director General, Integrated Business Management Services
Executive Director, CCG College

Coast Guard Management Board (MB) is the Agency's senior decision-making body. The Board is chaired by the Commissioner and comprises the Deputy Commissioners, the Directors General, the Assistant Commissioners, and the Executive Director of the Canadian Coast Guard College. The senior human resources advisor, the senior legal advisor, the senior financial advisor, the senior communications advisor, and the Executive Advisor to the Commissioner are *ex officio* members of MB. MB is supported by a number of permanent and temporary sub-committees.

Departmental Governance

The Government of Canada's Management Resources and Results Structures (MRRS) is the foundation of a government-wide approach aimed at strengthening the management and accountability of public expenditures and clearly demonstrating results for Canadians. The Program Activity Architecture (PAA) is part of the MRRS. The PAA shows how DFO's programs align with the Department's three strategic outcomes.

DFO redesigned its MRRS for 2011-2012 to better reflect the full range of programs it delivers and to improve its Performance Measurement Framework. A revised Strategic Outcome, *Economically Prosperous Maritime Sectors and Fisheries*, was introduced to acknowledge the Department's activities, research, advice and decisions, as well as its direct and indirect economic implications. The two other strategic outcomes are *Sustainable Aquatic Ecosystems* and *Safe and Secure Waters*. The alignment of Coast Guard programs to DFO's Strategic Outcomes is illustrated on page 6 under the header "Where We Fit".

In support of the redesigned MRRS, a new governance structure for the Department was put in place effective January 5, 2011. The new governance arrangements align the Department's committee structure with its Program Activity Architecture to ensure effective decision-making, clear accountabilities, and results-based management.

EXTERNAL ADVISORY GROUPS

National Marine Advisory Board (NMAB) and Regional Marine Advisory Boards (RMABs) – The NMAB and its six regional counterparts (RMABs) are the Coast Guard's primary interface with the marine shipping industry. They provide a forum for discussion of shared priorities and objectives, as well as for the feedback on service delivery that CCG requires as a service provider.

Additionally, at the regional level, CCG consults with a variety of stakeholders, including fishers and recreational boaters, through various local fora such as Local Marine Advisory Councils and fishers' advisory groups. CCG also participates in Transport Canada-led national and regional Canadian Marine Advisory Councils and Recreational Boating Advisory Councils.

Strategic Advisory Council (SAC) – Chaired by the Deputy Minister of Fisheries and Oceans Canada, SAC comprises Deputy Ministers from departments and agencies that receive support or services from Coast Guard. SAC's role is to provide input to strategic decisions and performance feedback on CCG service delivery.

Senior Project Advisory Committee (SPAC) – Chaired by the Deputy Commissioner, Vessel Procurement and comprised of senior departmental officials from Coast Guard and from other involved federal departments, SPAC provides a forum to orient major procurement projects to achieve national objectives.

WHERE WE FIT

COAST GUARD, CLIENTS AND STAKEHOLDERS AND THE GOVERNMENT OF CANADA

CCG does not operate alone. We work with many clients and stakeholders within and outside DFO, and our activities support the results those clients and stakeholders are seeking to achieve, as well as certain government-wide objectives. These activities, linkages and desired results are shown in the figure below.

CCG PROVIDES THESE SERVICES	TO ACHIEVE THESE RESULTS FOR CANADIANS *	STRATEGIC OUTCOMES
WATERWAYS MANAGEMENT	Commercial shipping industry and mariners are provided with channel management services and information to facilitate accessibility of main commercial shipping channels	ECONOMICALLY PROSPEROUS MARITIME SECTORS AND FISHERIES
AIDS TO NAVIGATION	Commercial shipping industry and mariners have access to reliable aids to navigation systems that allows safe and efficient navigation	
ICEBREAKING SERVICES	Icebreaking operations contribute to keep most Canadian ports and commercial channels open for business year round	
ENVIRONMENTAL RESPONSE SERVICES	Environmental, economic and public safety impacts of marine pollution events are mitigated	SUSTAINABLE AQUATIC ECOSYSTEMS
SEARCH AND RESCUE SERVICES	People at risk of loss of life or injury have access to assistance in the maritime environment. Canadian Coast Guard Auxiliary response is cost effective for the Canadian Coast Guard	SAFE AND SECURE WATERS
MARINE COMMUNICATIONS & TRAFFIC SERVICES	Vessels can transit Canadian waters safely	
MARITIME SECURITY	Federal enforcement and intelligence communities have adequate support and information to enhance their awareness of vessel movements and respond to on-water incidents.	
FLEET OPERATIONAL READINESS	A fleet of modern vessels which meet the operational requirements of the Government of Canada	
SHORE-BASED ASSET READINESS	Shore-based assets are available to deliver CCG programs	
CANADIAN COAST GUARD COLLEGE	CCG has access to trained operational personnel in support of Coast Guard programs	

TO HELP OUR CLIENTS AND STAKEHOLDERS ACHIEVE THEIR OWN RESULTS AND OBJECTIVES

FOR THE GOVERNMENT OF CANADA, THESE THREE GOVERNMENT-WIDE OUTCOMES:

A SAFE AND SECURE CANADA

STRONG ECONOMIC GROWTH

A CLEAN AND HEALTHY ENVIRONMENT

FOR OTHER GOVERNMENT DEPARTMENTS AND AGENCIES:

THEIR OWN RESULTS AND OBJECTIVES

*performance measures for these program results can be found in Section 5 (page 41) under each program activity.

SECTION TWO: WHERE WE ARE NOW

2

Coast Guard faces a number of risks and challenges which place pressure on both program delivery and operational capacity. CCG's risks and challenges have been identified from several sources:

- Internal and external reviews, audits and evaluations (e.g., the 2007 Report of the Auditor General, the 2010 horizontal Audits of the Office of the Auditor General (OAG) respecting federal Climate Change Adaptation and Pollution at Sea);
- Departmental environmental scans and analyses of Coast Guard's Strengths, Weaknesses, Opportunities and Threats;
- Recent corporate risk profiles identifying and assessing key corporate and external risks (During 2011-2012 CCG will be completing development of its program-specific risk profiles. Based on these profiles, CCG will update its corporate risk profile for 2012-2013); and
- Reports of Parliamentary Committees with analysis and recommendations bearing on Coast Guard.

We will respond to this challenge/risk...	With these strategies or key initiatives...	Which are described in detail...
Securing the Next Generation of Human Resources* (Also identified in DFO's Corporate Risk Profile, as Human Capital) In looking ahead over the next few years, CCG is expecting attrition rates to increase year over year. By 2015, we anticipate that approximately 1,379 employees (30% of our total workforce) will have left the Agency. This includes the potential loss of 820 employees from our at-risk groups (Ships' Officers, Ships' Crew, Marine Communication and Traffic Services Officers, Marine Electronics Technologists and the Engineers' Community) representing 59% of total projected departures. The challenge is to develop and sustain a highly skilled and flexible workforce with the ability to innovate and make use of new technology. Recruitment is one of our biggest challenges, and we recognize the potential for loss of valuable experience and corporate knowledge that comes with attrition. By focusing on a qualified and representative workforce, developing and supporting people, and ensuring fair and effective management, CCG will integrate recruitment, succession planning and training strategies to address attrition challenges and the particular pressures associated with the five occupational groups at highest risk.	A Qualified and Representative Workforce	On page 26
	Develop and Support People	On page 28
	Fair and Effective Management	On page 30
	Marine Communication and Traffic Services Technical Training	On page 57
	Fleet Operational Readiness Human Resources Initiatives	On page 82
	Canadian Coast Guard College Transformation Initiative	On page 90
Evolving Demand for Coast Guard Services (Also identified in DFO's Corporate Risk Profile, as Stakeholder Expectations) With an improving Canadian economy, marine traffic is expected to increase in the medium to long term. Increased traffic, the need to adapt to technological changes in the maritime sector (e.g. professional mariners demanding greater access to electronic navigation information), climate-change impacts such as fluctuating water levels and the extension of shipping seasons, are expected to place increasing demands on Coast Guard programs. CCG will also need to respond to recent and emerging maritime priorities of the Government of Canada and support requirements of other government departments. With the Arctic continuing to be a cornerstone of the government's agenda, actions and presence for sovereign development are creating new challenges and opportunities for Coast Guard. Meeting the needs of all users and stakeholders is becoming increasingly difficult for Coast Guard (e.g. call for more icebreaking services on the Great Lakes, changing risk profile of marine pollution events) with demands to hold on to the old while introducing new services within available resources.	Coast Guard's Fleet Renewal Plan	On page 13
	Procurement of New and Replacement Vessels	On page 14
	Long-term Plan for Shore-based Infrastructure	On page 17
	The Arctic	On page 19
	Environmental Response	On page 22
	e-navigation	On page 25
	Post-Panamax Study, St. Lawrence River	On page 52
	NAVAREAs (Navigational Areas)	On page 57
	Icebreaking Levels of Service	On page 60
	Service Level Agreements with DFO Clients	On page 32

**Identified as a key risk in the CCG Risk Profile 2009*

We will respond to this challenge/risk...	With these strategies or key initiatives...	Which are described in detail...
Aging Infrastructure* (Also identified in DFO's Corporate Risk Profile, as Physical Infrastructure) While benefiting from Economic Action Plan funding to undertake needed vessel refits, or in some cases, life extensions for larger vessels in Coast Guard's fleet, the large vessel component of the fleet continues to age, with implications for vessel reliability and availability, along with the associated maintenance costs. The fleet has very limited operational flexibility and no excess capacity, and maintaining an aging core capacity is a significant challenge. In recent years, the Government of Canada provided $1.4 billion to build 15 new large vessels beginning the process of fleet renewal. CCG's challenge is to deliver maritime services and maintain operational fleet capabilities with an aging asset base. Our shore-based infrastructure – CCG bases, fixed aids to navigation, radio towers, and Marine Communication and Traffic Services facilities – is also aging and is beyond its overall operational life expectancy. Despite significant investments these assets continue to deteriorate or become outdated or rendered obsolete as a result of technological advances. The challenge is to maintain existing infrastructure and to plan for, acquire and maintain assets and acquired services needed for effective and efficient operations. An example with regards to supplying navigational services; a move away from physical capital-intensive aids to navigation towards a more advanced information and communication technology-based service.	Coast Guard's Fleet Renewal Plan	On page 13
	Procurement of New and Replacement Vessels	On page 14
	Long-term Plan for Shore-based Infrastructure	On page 17
	Improve Asset Maintenance	On page 17
Functioning as a Truly National Institution Both the Auditor General and our own internal A-Base Review indicated that we need greater consistency in the design and delivery of our national program while safeguarding regional operational authority and responsibilities.	Asset Management System	On page 18
	Technical Solution Centres (Electronics)	On page 88
	Strategic Program Framework for CCG's Maritime Services	On page 34
	Stronger Canadian Coast Guard Identity	On page 33
Partnerships in Service Delivery* (Also identified in DFO's Corporate Risk Profile, as Partnering and Collaboration) CCG relies on the assistance of others to work effectively and efficiently to address functions critical to the delivery of CCG programs and services, such as corporate services, acquisitions, and procurement. Coast Guard must work closely with other federal departments and central agencies to secure administrative and program efficiencies and to obtain the inputs critical to the delivery of services. The Agency also works with and relies on other federal government departments, agencies, and volunteers (such as the Canadian Coast Guard Auxiliary and a variety of other stakeholders) to help fulfill federal mandates for Canadians. CCG's challenge in this regard is to strengthen the effectiveness of our partnerships and devise new ways and means to improve productivity.	Procurement of New and Replacement Vessels	On page 14
	Start the renewal process for the CCGA Contribution Agreements	On page 62
	Environmental Response	On page 22
	e-navigation	On page 25
	Post-Panamax Study, St. Lawrence River	On page 52
	Marine Security Enforcement Team	On page 73
	Marine Security Operations Centres	On page 74

**Identified as a key risk in the CCG Risk Profile 2009*

We will respond to this challenge/risk...	With these strategies or key initiatives...	Which are described in detail...
Managing Information* (Also identified in DFO's Corporate Risk Profile, as Information for Decision-Making) A number of reports, reviews, and exercises have highlighted the need for Coast Guard to improve its ability to acquire, apply, manage and communicate the information needed for business, operational, maintenance and investment decision-making, as well as performance measurement. It is important to ensure that citizens, the private sector and other partners are able to benefit from availability of data and information and the exchange of ideas with Coast Guard. Such information is critical to support day-to-day operations, for strategic decision-making, and for accountability to those we serve.	Long Term Plan for Shore-based Infrastructure	On page 17
	Modernization of the Business Management and Resource Allocation Process	On page 32
	Strategic Program Framework for CCG's Maritime Services	On page 34
	e-navigation	On page 25
	Asset Management System	On page 18
Maritime Security CCG has a broad mandate to provide support to other government departments, and has been contributing to the collaborative delivery of Canada's maritime security in partnership with the federal intelligence and enforcement community. At present, however, Coast Guard lacks the mandate and the means to play a more significant role in enforcing Canadian law and in protecting our national security. The challenge will be to strengthen Coast Guard's focus on maritime security and its ability to patrol Canada's coasts and support enforcement of federal laws on our oceans and Great Lakes.	Procurement of New and Replacement Vessels	On page 14
	Maritime Security	On page 24
	The Arctic	On page 19
	Marine Security Enforcement Team	On page 73
	Marine Security Operations Centres	On page 74
	Automatic Identification System	On page 74
	Long Range Identification and Tracking System	On page 75
Financial Capacity (Identified in DFO Risk Profile) CCG strives to maintain service levels to Canadians while being challenged by decreasing funds. These reductions come from many areas including administrative reductions, unfunded salary increases and vote netted revenue shortfalls. In parallel, the cost of doing business is rising (e.g. increasing costs to maintain and repair assets, vulnerability to marine fuel price fluctuations).	Modernization of the Business Management and Resource Allocation Process	On page 32

**Identified as a key risk in the CCG Risk Profile 2009*

SECTION THREE: PRIORITIES

3

The Coast Guard is responding to the risks and challenges outlined in Section 2 with the following strategic and management priorities that continue to focus on three critical success factors—our people, our assets and our future.

In addition to the priorities discussed in this section, CCG manages a wide variety of day-to-day operations and activities, details of which can be found in Sections 4 and 5.

STRATEGIC PRIORITIES:

1. Asset Renewal
2. The Arctic
3. Environmental Response
4. Maritime Security
5. e-navigation

MANAGEMENT PRIORITIES:

1. Workforce Management
2. Consistent Business Management Practices
3. Strategic Program Framework
4. CCG 50th Anniversary

STRATEGIC PRIORITIES

1. ASSET RENEWAL

As an operational Agency, the Canadian Coast Guard relies heavily on its vessels and shore-based assets to deliver maritime programs and services critical to Canadians. Of its $725M annual budget, approximately 80% supports operational readiness, including the acquisition, operation, and maintenance of fleet assets (e.g. vessels, small craft and helicopters) and of infrastructure assets (e.g. communication towers, radio equipment, aids to navigation). These assets are essential in ensuring that Coast Guard can deliver its mandated activities and support the operations of other government departments. This includes supporting economic prosperity, sustainable aquatic ecosystems, the safety and security of navigational waterways, and contributing to Canada's sovereignty.

In its Corporate Risk Profile and Investment Plan Risk Assessment 2010/11–2014/15, Coast Guard identified investment in the asset base as a high risk area, anticipating that the organization may be unable to procure and maintain its assets in a timely fashion, in order to deliver mandated services. While some of Coast Guard's assets are recent acquisitions and others are in relatively good condition, most are nearing the last phase of their operational life. Without further significant investment, asset condition and reliability will continue to suffer resulting in escalating maintenance costs and increasing risks of compromised programs and service delivery.

Coast Guard's asset renewal initiatives are, therefore, essential to ensure the maintenance and optimization of its operational capabilities and readiness and to position it as an enduring organization that can effectively and efficiently serve Canadians into the future. Coast Guard

2010-2011 ACCOMPLISHMENTS

FLEET RENEWAL PLAN

- Continued to align the Fleet Renewal Plan to meet government direction Procurement of new and replacement vessels
- Began construction of the first of nine Mid-Shore Patrol Vessels.
- Awarded the contract for the Offshore Fishery Science Vessels design and developed concept design.
- Finalized the concept design work and the Work Scope Definition for the Offshore Oceanographic Science Vessel, and developed the associated Design Instructions and Guidance during 2009-2010. Issued a contract in October 2010 for the development of the detailed design and construction specifications during 2010-2011.
- Finalized and validated the Requirements Baseline for the new Polar Icebreaker and started work on developing the Conceptual Design Package for the design contract Request for Proposal.
- Awarded the contract for construction of an Air Cushion Vehicle to replace CCGS *Penac*.

LONG-TERM PLANNING FOR SHORE-BASED INFRASTRUCTURE

- Delivered Asset Condition Reports providing a high level assessment of the condition of Aids to Navigation and Marine Communication and Traffic Services (MCTS) assets.
- Delivered Asset Class Plans for Aids to Navigation and MCTS assets.

VESSEL TRAFFIC INFORMATION SYSTEMS

- Commissioned the VTMIS-INNAV system (Vessel Traffic Management Information System/Information System on Marine Navigation) in the Pacific region and provided related operational training of personnel on the upgraded system.
- Decommissioned the VTOSS system (Vessel Traffic Operator Support System) including the disposal of old equipment.

DELIVERY OF ECONOMIC ACTION PLAN

- Delivered 60 small craft, 16 of 30 environmental response barges (final delivery scheduled for 2011) and five Cape Class Search and Rescue 47-foot Motor Lifeboats.
- Conducted five vessel life extensions and refits to 35 large CCG vessels.
- Entered final construction phase of the two 22-meter Near-Shore Fisheries Science vessels and the 25-meter Near-Shore Fisheries Science vessel (final delivery scheduled for 2011).

has various strategic investment plans in place to determine short, medium, and long-term priorities with regard to fleet and infrastructure investments. These include the long-term Fleet Renewal Plan, the 15-year Long-Term Plan for Shore-Based Infrastructure, and the annual Integrated Investment Plan. These are guided by government directions and Coast Guard's long-term vision of its programs and services.

A. COAST GUARD'S FLEET RENEWAL INITIATIVES

National Shipbuilding Procurement Strategy

The National Shipbuilding Procurement Strategy (NSPS), announced on June 3, 2010, establishes a long-term strategic sourcing relationship between the Government of Canada and Canadian shipyards for federal fleet renewal activities. Through a fair, transparent and competitive process, the Government of Canada will enter into a strategic sourcing relationship with two Canadian shipyards for the construction of 28 large Navy and Coast Guard vessels, at an approximate cost of $33 billion over 30 years. One shipyard will build combat ships and the other will build non-combat ships. The NSPS will support the sustainable development of our domestic shipbuilding industry by allowing shipyards to invest in modern equipment and technology and to make productivity improvements, thus increasing their ability to deliver federal fleet renewal in a cost effective manner. With time, this will also allow our Canadian shipbuilding industry to become more competitive in the international market. Canadian Coast Guard's component of the NSPS accounts for $1.2 billion over seven years and includes the procurement of the Polar Icebreaker. and four Science Vessels. There will also be opportunities for other Canadian shipyards to bid on maintenance and refit work, as well as small vessel construction for the Government of Canada.

Coast Guard's Fleet Renewal Plan

The Fleet Renewal Plan (the Plan) is Coast Guard's long-term procurement schedule and financial plan for vessel and helicopter renewal. The overall objective of the Fleet Renewal Plan is to have an orderly and affordable long term investment strategy to renew the Fleet in order to ensure that Coast Guard has sustainable on-water operational capability. The Plan is based on sound procurement principles and is adaptable to the changing needs of the Government. Led by the Deputy Commissioner, Vessel Procurement, in accordance with Fleet requirements, this Plan helps the Coast Guard prioritize new investment and advance options for Fleet renewal. The Plan also schedules appropriate life-cycle asset management measures, such as vessel life extensions, in order to maximize the operational life of vessels and helicopters.

Commitment	Lead
2011-2012	
Advance the development of the Canadian Coast Guard Fleet Renewal Plan.	DC,VP
Engage stakeholders on CCG future vessel needs.	DC, VP

Project Management Framework

An element of the Fleet Renewal Plan involves improving the Coast Guard's own capacity to deliver and implement the Plan. To do so, Vessel Procurement, in collaboration with Integrated Technical Services, Fleet, and other directorates will focus on the continuous improvement of project management maturity. By aiming at standardizing processes, tools, and documentation used in all aspects of project management, this approach will improve CCG's organizational project management capacity and meet some of the Department's strategic objectives.

Commitment	Lead
2011-2012	
Develop a Project Management Framework for CCG procurement.	DC,VP
Develop an action plan to implement the Project Management Framework.	DC, VP
2012-2013	
Initiate the implementation of the Project Management Framework.	DC,VP

Procurement of New and Replacement Vessels

Past fleet renewal efforts have resulted in funding for 15 new large vessels, announced in recent federal budgets. Since 2005, Coast Guard has received just over $1.4 billion for: Canada's first Polar Icebreaker, nine Mid-Shore Patrol Vessels, one Offshore Oceanographic Science Vessel, three Offshore Fisheries Science Vessels, and one Air Cushion Vehicle. The procurement of these vessels is well underway with each project at various stages of design or construction. In alignment with capacity requirements set by the Fleet, Vessel Procurement plans, manages, and verifies the design and construction of these assets, while providing engineering and project management support. Fleet and Integrated Technical Services manage procurement of small vessels, small craft and helicopters.

With regard to procurement of new and replacement vessels, Coast Guard expects to meet the following commitments in 2011–2014:

- **Mid-Shore Patrol Vessels**

The Government of Canada is procuring nine Mid-Shore Patrol Vessels. Five of these vessels will be used primarily to support the Department of Fisheries and Oceans' Compliance and Enforcement program in the Maritimes, Quebec, and Pacific Regions. The other four vessels will be used in a joint program with the Royal Canadian Mounted Police to enhance maritime security along the Great Lakes – St. Lawrence Seaway system. Construction of the first Mid-Shore Patrol Vessel began in October 2010 and construction of the second Mid-Shore Patrol Vessel commenced in February 2011. All nine vessels will be delivered by 2013-2014.

Commitment	In response to...	Lead
2011-2012		
Deliver the first Mid-Shore Patrol Vessel.	AG A-base	DC,VP
2012-2013		
Deliver five Mid-Shore Patrol Vessels.	AG A-base	DC, VP
2013-2014		
Deliver the final three Mid-Shore Patrol Vessels.	AG A-base	DC,VP

Offshore Fisheries Science Vessels

Three Offshore Fisheries Science Vessels (OFSV) will replace aging Coast Guard ships on the east and west coasts of Canada and provide a platform from which critical scientific research and ecosystem-based management will be performed. The OFSV project is currently in the definition phase and all vessels are expected to be delivered by 2015.

During 2010-2011, the contract for the OFSV design was awarded and the Concept Design was developed by the contractor. The final design and construction specifications package will be completed during 2011-2012.

Commitment	Lead
2011-2012	
Complete design of the Offshore Fisheries Science Vessels.	DC,VP
Seek Treasury Board Effective Project Approval and authority to contract for construction under the National Shipbuilding Strategy.	DC,VP
2012-2013	
Award the contract to build the Offshore Fisheries Science Vessels.	DC, VP
Manage the construction of the Offshore Fisheries Science Vessels.	DC,VP
2013-2014	
Manage the construction of the Offshore Fisheries Science Vessels.	DC,VP

Offshore Oceanographic Science Vessel

One Offshore Oceanographic Science Vessel (OOSV) will replace the Canadian Coast Guard's largest science vessel CCGS *Hudson*, built in 1963. An OOSV is critical to fulfilling the Department's science mandate, as well as those of other government departments and agencies. The OOSV project is currently in the Preliminary Design Phase and delivery of the vessel is planned for 2014. During 2009-2010, the concept design work was finalized and the Work Scope Definition and the associated Design Instructions and Guidance were developed. A contract was issued in October 2010 for the development of the detailed design and construction specifications during 2010-2011.

Commitment	In response to...	Lead
2011-2012		
Complete design of the Offshore Oceanographic Science Vessel.	AG A-base	DC,VP
Seek Treasury Board Effective Project Approval and authority to contract for construction under the National Shipbuilding Procurement Strategy.	AG A-base	DC,VP
2012-2013		
Award the contract to build the Offshore Oceanographic Science Vessel.	AG A-base	DC, VP
Manage the construction of the Offshore Oceanographic Science Vessel.	AG A-base	DC,VP

Polar Icebreaker

A new Polar Icebreaker, CCGS *John G. Diefenbaker*, will be designed, built, and delivered in time for the decommissioning in 2017 of the Coast Guard's largest and most capable heavy icebreaker, CCGS *Louis S. St-Laurent.*

In 2010-2011, with the engagement of a broad group of stakeholders, a robust Requirements Baseline was finalized and validated. Much effort was put forward to develop the Conceptual Design Package for the design contract Request for Proposal. The Polar Icebreaker team engaged with industry to develop a more detailed appreciation of the industrial base available to support the detailed design stage.

Currently planned for 2011-2012 is the finalization of the Conceptual Design Package in preparation for the Request for Proposal release scheduled for late spring of 2011, with the award of the Design Contract planned for the fall of 2011.

The Polar Icebreaker remains on track for delivery in late 2017 as per established milestones and expectations.

Commitment	In response to...	Lead
2011-2012		
Award the contract for the design of the Polar Icebreaker.	AG A-base	DC,VP
2012-2013		
Conduct the Preliminary Design Review.		DC, VP
2013-2014		
Conduct the Final Design Review.		DC,VP
Seek Treasury Board Effective Project Approval and authority to contract for construction.		DC,VP
Award the contract to build the Polar Icebreaker.		DC,VP

Air Cushion Vehicle

The Government of Canada is procuring an Air Cushion Vehicle (ACV) to replace CCGS *Penac* at the Canadian Coast Guard Sea Island Hovercraft Base in Richmond, British Columbia. It will provide ongoing search and rescue coverage in the area, allowing CCG to continue to fulfill its mandate and maintain current levels of service. A contract for the construction of the ACV was awarded to Griffon Hoverwork Ltd. of the United Kingdom on March 15, 2011. The vessel is expected to be delivered by the fall of 2013.

Commitment	In response to...	Lead
2011-2012		
Manage construction of the ACV.	AG A-base	DC,VP
2012-2013		
Manage construction of the ACV.	AG A-base	DC, VP
2013-2014		
Accept delivery of the ACV.	AG A-base	DC,VP

Environmental Response Barges and Near-Shore Fisheries Science Vessels

As part of the Economic Action Plan, the CCG was to deliver 30 replacement environmental response barges and two 22-meter and one 25-meter Near-Shore Fisheries Science Vessels by end of fiscal year 2010-2011. Of the 30 planned replacement barges, 16 were successfully delivered with a remaining 14 barges to be delivered. The three Near-Shore Fisheries Science Vessels are in their final phase of construction. The remaining barges and the Near-Shore Fisheries Science Vessels will be delivered during 2011-2012.

Commitment	Lead
2011-2012	
Deliver the remaining 14 environmental response barges.	DG, ITS
Deliver the three Near-Shore Fisheries Science Vessels.	DG, ITS

B. COAST GUARD'S SHORE-BASED ASSET RENEWAL INITIATIVE

The CCG manages $1.5 billion (estimated replacement value) in shore-based assets in support of the Aids to Navigation and Marine Communication and Traffic Services programs. Although short- to medium-term planning for shore-based infrastructure is incorporated into the CCG Integrated Investment Plan, the value and importance of these assets also justify creation of a long-term plan. The Long-term Plan for Shore-based Infrastructure will present a 15-year plan for the capital investments required to ensure the reliability and availability of CCG's shore-based assets to meet the current and future needs of the Aids to Navigation and Marine Communication and Traffic Services programs. The Long-term Plan for Shore-based Infrastructure will allow the CCG to strategically plan and prioritize maintenance, replacement and divestiture activities.

In addition, the long-term planning for shore-based assets has addressed concerns regarding CCG's ability to provide information on the condition of aids to navigation assets and infrastructure. These concerns have been identified in both the DFO and CCG corporate risk profiles. To address the risk, asset condition reports and class plans for Aids to Navigation and Marine Communication and Traffic Services assets were delivered as part of the *CCG Business Plan 2010–2013*. These two documents form the foundation to building the Long-term Plan for Shore-based Infrastructure.

Commitment	Lead
2011-2012	
Publish the Long-term Plan for Shore-based Infrastructure.	DG, MS DG, ITS

C. IMPROVE ASSET MAINTENANCE

As CCG renews the shore-based assets and vessels critical to its program delivery, it is also focusing on improving asset maintenance practices to ensure that these capital investments as well as existing program assets remain available and reliable over the duration of their intended operational life. Several initiatives to improve maintenance practices were undertaken over the last two fiscal years, with the Vessel Maintenance Management Review (VMMR) being the most significant one.

Subsequent to the 2007 Report of the Auditor General, the CCG Commissioner requested that a national review of CCG's vessel maintenance program be conducted to provide an assessment and validation of the lifecycle management strategy for its vessels, including supporting systems, procedures, and operations. The Vessel Maintenance Management Review resulted in 23 recommendations, out of which a three-year action plan was developed, and is now being implemented.

The activities to address the 23 recommendations, as part of the three-year plan, included improving maintenance documentation such as plans and specifications, improving management processes and activities, clarifying roles and responsibilities, and improving CCG's ability to prioritize and plan maintenance of CCG vessels.

Fiscal year 2011-2012 is the last year of the three-year action plan to improve vessel maintenance management. Most commitments in the plan were achieved during 2010-2011. The remaining activities in the action plan are to address the technical training aspect for vessel maintenance and, to fully operationalize the Centre of Expertise for vessel maintenance, which was deferred to 2012-2013.

Commitment	In response to...	Lead
2011-2012		
Prioritize technical training requirements and establish learning objectives.		DG, ITS DG, Fleet
Expand distribution and use of Maintelligence for maintenance management and inventory control.	AG	AC, C&A
2012-2013		
Develop training syllabus for the maintenance of ALCO diesel engine.		ED, College
Continue to operationalize the Centre of Expertise for vessel maintenance management including funding and staffing Phase II of VMMR capital-funded positions.	AG	DG, ITS DG, Fleet

CCG has also taken steps to improve the information systems required to deliver more efficient asset maintenance as well as all aspects of life-cycle asset management. CCG's Asset Management System (AMS) which consists of two component systems, MAINTelligence, used on-board large vessels; and MAXIMO, used for shore-based assets and station-based vessels, is the critical information management system for life cycle asset management. It provides a focal point for standardizing maintenance procedures and materiel management practices; allows the tracking of maintenance history and identifying actual maintenance costs; and institutes a system for authorizing, scheduling, and tracking the maintenance work undertaken by CCG staff.

Improvements to AMS are a mitigation strategy to respond to the risk identified in both the DFO and CCG Corporate Risk Profiles relating to the management of information. It will improve CCG's ability to store maintenance data and support day-to-day operations as well as strategic business and investment decision making, thereby increasing efficiency and improving the quality of asset management services.

During fiscal year 2010-11, the upgrade to MAXIMO version 7 commenced and MAINTelligence was deployed on board large vessels and is currently being used by fleet personnel. The focus for this fiscal year is to deploy the new version of MAXIMO and provide training to ITS personnel.

Commitment	In response to...	Lead
2011-2012		
Deploy MAXIMO version 7.	AG	DG, ITS
Deliver MAXIMO training sessions on MAXIMO version 7 to regional ITS staff.	AG	ACs
Deliver MAXIMO training sessions on MAXIMO version 7 to HQ ITS staff.	AG	DG, ITS

2. THE ARCTIC

2010-2011 ACCOMPLISHMENTS

- Completed detailed contextual work on CCG in the North, to create common base of knowledge.
- Created 5, 15 and 30-year outcomes-based 'visions' for major CCG program clusters (CCG: fleet, security, maritime services, emergency response and governance).
- Clarified overall needs in areas of: understanding the North; policy and regulatory foundations needed; program integrity and investment, capital and infrastructure; partnering and co-management; and increased presence and community capacity.
- Formed an ongoing 'community of interest'/network within CCG and with rest of DFO, as the basis for regular contact, dissemination and debriefing, spanning HQ, Regions and northern areas.

Retreating polar ice, global demand for resources, and prospects of year-round shipping are creating new challenges and opportunities for the North. DFO/CCG activities across all sectors play a key role in Northern commerce, safety, and security; sustainable resource development; our understanding and protection of Arctic ecosystems and habitats; and the facilitation of northern communities in their quest for greater economic prosperity. The Canadian Coast Guard acts as a platform for many of these activities, as well as undertaking critical roles in the Arctic under its own mandate.

CCG has a long and proud history of providing service in the Arctic and to Northern Canadians. Every year, from late June to early November, Coast Guard deploys one light, two heavy and three medium icebreakers to the Arctic. In addition to the officers and crew that operate these icebreakers, close to 70 other CCG employees are assigned to Northern operations on a seasonal basis.

OUR ARCTIC ACTIVITIES, MANY OF WHICH ARE DELIVERED IN PARTNERSHIP WITH OTHERS, INCLUDE:

- Escorting commercial ships through ice to ensure access to Northern communities;
- Supporting scientific endeavours such as hydrographic charting and marine science;
- Maintaining some aids to navigation in Canadian Arctic waterways;
- Delivering primary response capability to respond to pollution incidents north of 60;
- Providing maritime search and rescue services;
- Providing marine communications and traffic services from two seasonal Centres: Inuvik in the west and Iqaluit in the east;
- Broadcasting weather and ice information and navigational warnings;
- Delivering food, cargo, and fuel to remote sites where commercial services are unavailable;
- Conducting joint exercises with international partners and the Department of National Defence (e.g. Operation NANOOK); and
- Developing an improved awareness of the Arctic maritime domain through vessel identification and tracking security initiatives.

The Canadian Coast Guard is one of the most identifiable symbols of a Canadian presence, reinforcing both Canadian Arctic sovereignty through the presence of Coast Guard personnel and assets in Canada's North, and CCG's specific roles in Northern marine shipping. As well, alongside the activities of other parts of DFO, the Coast Guard advances the goals of the government's Northern Strategy, and keeps Arctic waterways open, safe, and clean. A number of CCG initiatives are underway:

- In Budget 2008, the government announced that a new Polar Icebreaker, CCGS *John G. Diefenbaker,* would be designed, built, and delivered in time for the decommissioning in 2017 of the Coast Guard's largest and most capable heavy icebreaker, CCGS *Louis S. St-Laurent.* As part of the Government's Northern Strategy, the Polar Icebreaker will play a role in protecting Canadian sovereign interests and delivering federal programs in the Arctic for a longer period each year than is presently the case. As such, the Polar Icebreaker will be an important instrument of government policy in the North. (see page 16)
- CCG is a partner in the Small Craft Harbour's multi-year project to construct a harbour in Pangnirtung, Nunavut. CCG's role in this project is the design, acquisition and installation of an aids to navigation system for the harbour. Work commenced in 2010 and will continue into 2011. (see page 39)
- In 2007, the International Maritime Organization (IMO) confirmed Canada in its role as international coordinator and issuing service for navigational warnings for two Navigational Areas (NAVAREAs) in the Arctic. The broadcasting and coordinating of navigational warnings began, in initial operational capacity, in July 2010. CCG will initiate the NAVAREA satellite transmission service, in full operational capacity in 2011-2012. Starting in 2012-2013, CCG will acquire high-frequency radio transmitting equipment to support the broadcast for the high Arctic (above 76°N) and will officially launch these transmissions by the start of the 2014 Arctic navigational season. (see page 57)

- In order to support Search and Rescue (SAR) service delivery in the North, in 2011-2012 the CCG SAR program will be working with its partners in the Canadian Forces to identify opportunities to enhance their support and capabilities for maritime SAR in some Arctic communities in cooperation with the Canadian Coast Guard Auxiliary (CCGA). The CCG SAR program will also begin implementing the new international *Agreement on Cooperation on Aeronautical and Maritime Search and Rescue*, once signed. As a demonstration of commitment to the implementation of the agreement, CCG will support the Canadian Forces in hosting a maritime SAR tabletop exercise focused on the Arctic, in cooperation with several other Arctic states in the fall of 2011. (see page 63)
- In 2007, the CCG received funding under the Health of the Oceans initiative to augment Canada's capacity to respond to oil spills in the Arctic. Acquisition and distribution of the environmental response equipment, referred to as Arctic Community packages, was completed in 2010-2011. In 2011-12 we will start the planning of training for those communities that received the packages. (see page 69)
- With the implementation of the Long Range Identification and Tracking (LRIT) System, CCG is currently the only significant collector of vessel traffic information in the Arctic. Through LRIT, CCG is capable of tracking vessels north of 84 degrees, North Latitude. This unique capacity positions CCG as an essential contributor to Arctic marine safety and security. (see page 75)
- Operation Nanook is the Government of Canada's premier operational exercise in the Arctic; demonstrating Canada's ability to respond to emergencies in the Arctic. In 2011 the CCG is providing overall logistical and operational support to a major military exercise and major air disaster scenario as well as a Community Day in Resolute, Nunavut. Some of the activities involved include assisting in booming off a downed aircraft in an interior lake in the Arctic and participating in a major marine SAR exercise in the eastern High Arctic.
- DFO and CCG have been working closely over the past year and a half to articulate a long-term Integrated Arctic Vision. The work is raising a number of policy, operational, investment, and governance questions and challenges for CCG, DFO and the Government of Canada. It remains to further define new requirements to advance CCG priorities, departmental strategic outcomes, and Canada's Northern Strategy in the region, including important links to options for possible law enforcement capacity and mandate for Coast Guard. This will involve knowing what further internal planning will be needed for Coast Guard to respond strategically to opportunities and risks in the Arctic while being fully cognizant of resource constraints.

3. ENVIRONMENTAL RESPONSE

2010-2011 ACCOMPLISHMENTS

- Created the Environmental Response Branch and added a new strategic capacity to the program.
- Began the revision of the National Environmental Response Strategy based on audit findings.
- Engaged federal partners through a newly created Interdepartmental Marine Pollution Committee.

Over the last five years the Canadian marine pollution risk profile has changed, with increasing vessel traffic in the Arctic, resumption of Beaufort Sea oil and gas exploration, increased tonnage of hazardous and noxious substances being transported within Canadian waters, and impending deep sea drilling in the North Atlantic. Recent national and international events, including the grounding of two vessels in the Arctic in the Summer of 2010, and the Deepwater Horizon oil platform disaster in the Gulf of Mexico have heightened public expectations that the Government will be ready and able to respond to marine spills in any geographic area and in all operating conditions to protect coastal communities and Canadian interests.

These factors underscore the need for CCG, as the manager of the Government of Canada's operational marine pollution response capacity, to ensure it has an appropriate level of preparedness, readiness, and response capacity to address potential spills from ships.

In 2010, the Commissioner of the Environment and Sustainable Development (CESD) audit of *Oil Spills from Ships* and an internal audit of the Environmental Response Program by DFO highlighted a number of areas for improvement in Canada's preparedness to respond to oil spills from ships. In particular, the audits noted the need to regularly update risk assessments and emergency management plans, assess CCG's response capacity in relation to risk and industry capacity, and verify the readiness of the CCG to respond to marine pollution incidents. While the audits pointed out a number of deficiencies in the Environmental Response Program management control framework, they did not evaluate the actual response activities of the CCG. Each year, the CCG successfully responds to over 1,300 reported marine pollution incidents.

In June 2010, the CCG established a new Environmental Response Branch within the Maritime Services Directorate in consideration of the audit findings and changing risk profile. The new Branch has a dedicated Director and additional personnel to ensure a focused effort within the CCG to re-invigorate the Environmental Response Program, and to

ensure that the CCG is able to fulfill its mandated obligations related to marine pollution preparedenss and response.

As well in 2010, the Interdepartmental Marine Pollution Committee (IMPC) was formed, co-chaired by CCG and Transport Canada, and which reports to the Assistant Deputy Ministers' Emergency Management Committee. The IMPC supports the Government of Canada's obligations and objectives related to marine pollution, focusing on interdepartmental collaboration to strengthen Canada's ability in prevention, preparedness, and response and recovery capabilities to marine pollution events. Transport Canada, Environment Canada, Natural Resources Canada, Aboriginal Affairs and Northern Development, National Defence, and Public Safety Canada are members of the Committee. The IMPC will collectively address the CESD audit recommendations, and promote a whole of government approach to addressing marine pollution events. In addition to strengthening domestic partnerships, CCG is also affirming international partnerships to ensure mechanisms are in place should Canada require response assistance from other nations. Existing bi-national plans are being updated with the United States Coast Guard, and new partnerships are being established with Arctic nations under the auspices of the Arctic Council. These efforts will help ensure that the federal government is ready and able to adequately respond to any marine pollution incident.

Re-invigoration of the Environmental Response Program has been identifed as a priority of the CCG and DFO in the 2011-2012 Report on Plans and Priorities. This year, the CCG will develop an integrated management action plan to address the recommendations of both the DFO and CESD audits, and implement a process to regularly report back to the CESD on progress being made against their audit recommendations. Also, in response to a CESD recommendation, the Environmental Response Program will review its incident management system (called the Response Management System) to ensure that CCG is capable of suppporting a multi-party response to a major oil spill in Canadian waters.

In addition to addressing audit recommendations, the CCG will also build on lessons learned from real-life response activities. Once such example is from the United States Coast Guard's review of their response to Deepwater Horizon, where gaps in crisis leadership were identified. The CCG will develop a set of crisis leadership competencies for CCG senior management and identify training and learning opportunities for those managers who may be called on during a large marine pollution incident.

Commitment	In response to...	Lead
2011-2012		
Develop and begin implementation of an Integrated Management Action Plan to address recommendations from the audits and initiate a process to report on progress to the CESD.	DFO and CESD audits	DG, MS
Promote and foster a whole of government approach to marine pollution prevention, preparedness, response and recovery.	CESD audit	DG, MS
Develop a set of crisis leadership competencies for CCG senior management, and identify training opportunities for those CCG senior managers who may be called on in a large marine pollution response.		DG, MS AC, Maritimes
Review the Response Management System to ensure it can support a multi-party response to a major spill.	CESD audit	DG, MS

4. MARITIME SECURITY

National security is a fundamental role of a federal government and a priority for the Government of Canada. An enhanced level of security in Canada's marine transportation system strengthens Canada's capacity to address national and international concerns with respect to maintaining an acceptable level of security in the maritime domain. In support of national security, CCG uses its vessel fleet, on-water expertise, policy know-how and extensive vessel monitoring systems to:

- Enhance awareness of possible maritime security threats;
- Support on-water law enforcement and responsiveness; and
- Enhance collaboration with departments and agencies throughout the maritime security community.

The CCG is at an important juncture in its history, as the organization considers the implications of an organizational shift from a maritime safety orientation to a culture that is influenced by both safety and national security perspectives. In the coming years, as the program develops further and matures, it will be important to ensure that all internal and external security partners fully understand the unique roles and responsibilities of the Coast Guard within the national and maritime security community, both domestically and internationally. In this vein, CCG will finalize and implement a communications strategy for Maritime Security to promote an appropriate level of awareness.

Commitment	Lead
2011-2012	
Finalize and implement a communications strategy for Maritime Security.	DC, Operations
Lead an interdepartmental effort for the development of options to provide CCG with the means to play a more significant role in enforcing Canadian law and in protecting our national security.	Commissioner, Deputy Commissioners

5. E-NAVIGATION

2010-2011 ACCOMPLISHMENTS

- Finalized a user-need matrix, federal vision/strategy and a high-level implementation plan for e-navigation, in consultation with stakeholders and other government departments.

The International Maritime Organization (IMO) expects e-navigation to be implemented world-wide in the next 10 to 15 years. Through its implementation of several test bed projects that have since migrated to operational status, such as MarInfo in the Quebec Region and AVADEPTH in Pacific Region, CCG is well positioned to take a leadership role in e-navigation both domestically and internationally, to be at the forefront of its implementation, and to influence international standards.

Implementing e-navigation in a coordinated and organized manner in Canada that involves collaborating with multiple federal departments and the shipping industry will significantly enhance safety, have positive economic effects and increase environmental protection.

The success of MarInfo and AVADEPTH has resulted in increased expectations by Canadian mariners for e-navigation services. In order to respond adequately to these demands, the CCG consulted marine stakeholders in 2009-2010 on e-navigation. This consultation helped to identify the user needs for each major maritime region and highlighted key concerns. Results of this survey were shared both nationally and internationally, and became the basis for the development of a Canadian e-navigation User-Needs Matrix. This matrix prioritized the services that are expected to be provided by shore authorities to mariners. It is sub-divided into navigational areas in order to provide the right information to the right area without overloading mariners with unnecessary data.

A national vision and a high-level implementation plan for e-navigation were completed in 2010-2011, in collaboration with other key federal departments in e-navigation – Transport Canada, Environment Canada and the Canadian Hydrographic Service. As a next step, CCG will prepare a report based on a gap analysis readiness assessment concerning data sources and services such as the architecture, analysis and recommended changes on information systems as well as the development of a national e-navigation portal. Specifically for Quebec Region, Coast Guard will work, in collaboration with the Port of Montreal and the Canadian Hydrographic Service, on the evaluation of a dynamic under keel clearance system developed by external firms, moving towards the optimal use of the St. Lawrence River shipping channel.

WHAT IS E-NAVIGATION?

e-navigation refers to the ability for accurate and reliable navigational information to be available and used by vessels and shore authorities to support effective decision-making, minimize human error and enhance communications.

The e-navigation initiative will continue with full collaboration of all parties involved. Consultation with mariners and pilots will remain a key condition for the successful implementation of e-navigation in Canadian waters.

Commitment	In response to...	Lead
2011-2012		
Complete a report on the assessment performed in 2011-2012 concerning the e-navigation data sources and services and on the development of a national e-navigation portal.	AG	DG, MS DG, ITS
Continue to work collaboratively on the e-navigation phase II project – evaluation of dynamic under keel clearance systems developed by external firms, for use in the St. Lawrence River shipping channel.	AG	AC, QUEBEC
2012-2013		
Begin the standardization process of e-navigation data sources and services.	AG	DG, MS DG, ITS

MANAGEMENT PRIORITIES

1. WORKFORCE MANAGEMENT

2010-2011 ACCOMPLISHMENTS

- Completed all remaining commitments in the 2008-2011 EE MAP
- Developed the Operational Women's Network to serve as a forum for communication among seagoing women
- Achieved a 94% Employment Equity representation rate relative to workforce availability estimates
- Revamped CCG Careers page; viewership increased by 600%

The Coast Guard faces new challenges in our 2011–2014 planning cycle, but there is one constant we can depend on – our dedicated and professional workforce. Our people have shaped CCG over its long history, and will continue to be our strength as we move forward.

Although we are operating in a period of fiscal restraint, we will continue to invest in our people. We will maintain our focus on fostering a qualified and representative workforce, developing and supporting people, and demonstrating fair and effective management. The *2011–2014 Coast Guard Strategic Human Resources Plan* provides additional details on each of the following initiatives and is available on the CCG Website (http://www.ccg-gcc.gc.ca/eng/CCG/HRPlan-2011–2014).

A Qualified and Representative Workforce

Demographic shifts continue to be the biggest single influence on our workforce as increasing numbers of experienced employees become eligible for retirement and the Canadian population continues to become more diverse.

Our recruitment efforts and succession planning will continue to focus on the five at-risk groups that are essential to our operations (Ships' Officer, Ships' Crew (SC), Radio Operations, Engineers and Electronics). Our revamped Careers page http://www.ccg-gcc.gc.ca/eng/CCG/Careers, featuring virtual tours of six vessels, videos portraying the five at-risk groups, and the ability to use some 600 photos that were added to the Coast Guard database to attract candidates, will continue to be key in helping potential recruits understand the possible career options with the Coast Guard. The site will be evaluated in 2011-2012 to determine how its effectiveness can be enhanced. Recruitment outreach kits and participation at career fairs will also be important in targeting these at-risk groups.

Commitment	Lead
2011-2012	
Evaluate effectiveness of the revamped Careers Page on the CCG Website.	DG, IBMS

A number of specific approaches will also help us attract and retain members of at-risk groups. These include: increasing the officer-cadet intake at the Canadian Coast Guard College; encouraging qualified Ships' Crew to obtain Third Class Engineer certificates; using an established national pool to recruit Marine Communications and Traffic Services Officers; and hiring through the Marine Electronics Development Program which allows new electronics technologists to gain the knowledge and skills they need for working-level positions within CCG.

Commitment	Lead
2011-2012	
Implement the Third Class Engineer Certification module of the Ships' Crew Certification Program.	DG, Fleet
2012-2013	
Continue implementation of the Third Class Engineer Certification module of the Ships' Crew Certification Program.	DG, Fleet
2013-2014	
Conduct analysis on additional certificate training opportunities through use of the Ships' Crew Certification Program.	DG, Fleet

CCG recognizes that recruitment provides an opportunity to ensure our workforce is representative of Canadian society. We will continue our efforts to fulfill Employment Equity Management Action Plan (EE MAP) commitments, by working to attract and retain a diverse and representative workforce and by using recruitment tools to target regions and specific occupational groups where gaps exist. We will also work closely with our DFO colleagues to develop the 2011–2014 EE MAP, which will guide our efforts in future years. Specifically, through the Operational Women's Network we will continue to support women pursuing careers at sea. Additionally, in an effort to attract more women into seagoing positions the CCG will continue to provide funding for their Marine Emergency Duties certification requirements and training. For Aboriginal peoples, we will continue our efforts to increase representation within the SC occupational group, particularly those working in a deck or engine room position. For all designated groups, we will work to ensure that they are retained and provided with advancement opportunities through targeted succession planning.

Commitment	In response to...	Lead
2011-2012		
Implement CCG commitments stemming from the new 2011–2014 DFO Employment Equity Management Action Plan.	EE MAP	CCG MB Members
Implement the Operational Women's Network.	EE MAP	DG, Fleet
Participate in an Aboriginal Bridging Pilot Project to recruit students into the Canadian Coast Guard Officer Training Program.	EE MAP	ED, College
2012-2013		
Implement CCG commitments stemming from the new 2011–2014 DFO Employment Equity Management Action Plan.	EE MAP	CCG MB Members
Implement the Aboriginal Bridging Pilot Project into the Officer Training Program.	EE MAP	ED, College
2013-2014		
Implement CCG commitments stemming from the new 2011–2014 DFO Employment Equity Management Action Plan.	EE MAP	CCG MB Members
Evaluate and report on the success of the Aboriginal Bridging Pilot Project for consideration in future recruitment strategies.	EE MAP	ED, College

CCG's MCTS Officer *ab initio* program ensures that recruits into this program receive standardized up-to-date training. The program is designed for new recruits who have no previous experience in this field. In the coming years, CCG will be focusing its efforts on implementing the workload study recommendations and defining a vision for the *ab initio* program's future.

Commitment	Lead
2012-2013	
Review the Marine Communications and Traffic Services ab-initio development program.[2]	DG, MS
2013-2014	
Develop an action plan with the view of implementing recommendations from the MCTS ab-initio development program review.	DG, MS ED, College

---

[2] *An* ab-initio *is a person who is recruited and selected to participate in the MCTS Officer Training and Certification program in order to acquire the knowledge and skill requirements of a MCTS Officer.*

Develop and Support People

2010-2011 ACCOMPLISHMENTS

- 93 % of all shore based employees had a learning plan for 2010-2011.
- Implemented a Framework for Developmental Language Training.
- Developed a National CCG Orientation Program.
- Evaluated the national Leadership Development Pilot Program.

Investments in people are essential if CCG is to deliver programs and services of the highest standard. Since the launch of the Performance Review System (PRS) in 2008-2009, CCG has continued its efforts to monitor and promote regular performance reviews and the development of learning plans. Individual Learning Plans present an excellent opportunity for CCG managers and employees to have a discussion about individual goals, in the context of organizational objectives, career management, and learning needs as they link to performance objectives.

Training takes place throughout the organization, with core national educational programs provided by the Canadian Coast Guard College. CCG offers training programs that allow both new and existing employees to advance through the ranks. In 2011-2012, the CCG College will continue to offer programs in four streams (CCG Officer Training Program (CCGOTP), Marine Communications and Traffic Services (MCTS), Marine Maintenance and Equipment Training (MMET), Search and Rescue, Safety and Environmental Response, including ongoing technical training for seagoing personnel), while continuing to effect its transformation agenda so that it provides the highest quality training in response to CCG's future requirements.

CCG expects that the outline and action plan for an ENG-03 Coaching and Mentoring Program will be approved in 2011, while development of a Professional Development Program for Marine Engineers is ongoing. The Program will be consistent with the CCG Standard Organization when complete.

In an effort to provide employees with opportunities to gain valuable experience and corporate knowledge, CCG uses a variety of tools such as job shadowing, mentoring, on-line training and short-term acting appointments. These tools help prepare employees to participate in competitions for advancement and will ultimately aid in CCG's succession planning.

Commitment	Lead
2011-2012	
Implement ENG-03 Coaching and Mentoring Program.	DG, ITS

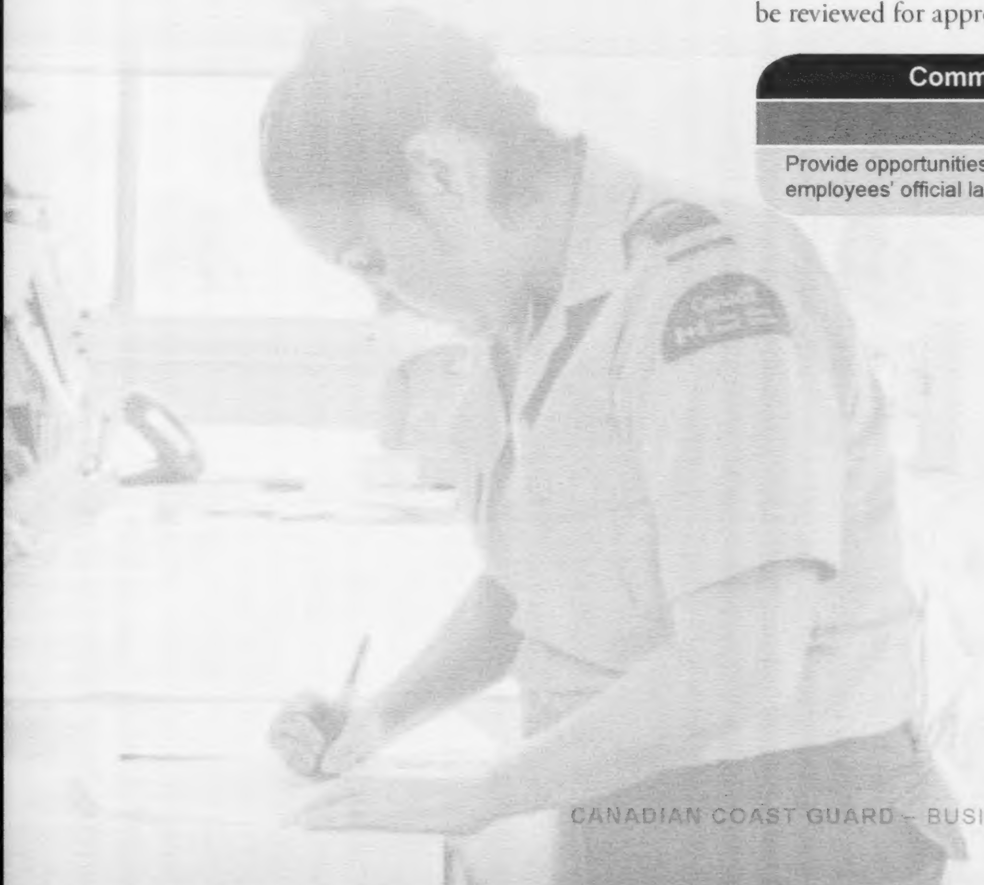
Initiatives that proved successful across the organization in 2010-2011 will continue. These include an Orientation Program for new employees, which features an on-line program soon to be available on CDs, to meet the needs of seagoing employees. Professional development and training weeks will continue to be held, and efforts to strengthen relationships with First Nation communities will be ongoing. A two-week refresher couse for MCTS Officers was positively received; an abbreviated eight-day version will therefore be offered and all officers will be expected to complete it within a ten-year period. The national Leadership Development Pilot Program, launched in 2007, was evaluated in 2010-2011 and deemed very successful; the Leadership Development Program will therefore continue and be expanded to include the Canadian Coast Guard College and the National Capital Region.

Commitment	In response to...	Lead
2011-2012		
Launch the CCG Orientation Program for all new employees.		DG, IBMS
Implement the Continuous Proficiency Training (Refresher) Course for MCTS Officers.	AG	DG, MS ED, College
Develop the expansion of the Leadership Development Pilot Program to include the Canadian Coast Guard College and the National Capital Region.	PSES	AC, NL
2012-2013		
Implement the expanded Leadership Development Program.	PSES	CCG MB members

Efforts to clarify training and development expenditures will continue and transparency in training budgets will be an ongoing management practice. The intended result is improved planning tools that allow managers to create realistic annual budgets and that encourage staff at all levels to make use of training allocations.

Improving our capacity in both official languages continues to be a priority. Although the second-language prerequisite no longer applies to candidates enrolling in the Officer Training Program, we will reinforce our existing second-language training capacity at the CCG College to ensure graduating officer-cadets meet official language requirements. In an attempt to balance fair, transparent and equitable management of language training against CCG operational and financial constraints, the CCG Framework for Developmental Language Training was launched in January 2011. Applications for language training will be sought annually, and will be reviewed for approval by a governance committee.

Commitment	Lead
2011-2012	
Provide opportunities to improve College employees' official language competencies.	ED, College



Fair and Effective Management

2010-2011 ACCOMPLISHMENTS

- Completed 66% of transition to the Standard Organization.
- Approximately 824 Standard Organization positions have been linked to a National or Regional Model Work Description.

CCG will continue to focus on fair and effective human resources management. We will continue to improve our staffing practices by relying more heavily on collective staffing and pools of qualified candidates, and being judicious in our use of temporary employment measures.

In 2009, the Coast Guard launched the Standard Organization (SO) to improve national consistency in human resources management. The SO was developed to enable more consistent service delivery, resolve classification anomalies and ensure equitable distribution of resources. Since its launch, the SO has become vital to ensuring fair and effective management and creating a truly national institution that operates consistently in all regions. Transition to the SO is already 66% complete and impacted employees have been identified. An impact analysis report and a justification for invoking section 43 of the *Public Service Employment Act (PSEA)* were submitted to the Public Service Commission. Approval was received to invoke section 43 of the PSEA for priority clearance requests when staffing CCG affected employees. Although SO transition is 66% complete, emerging financial pressures and delays in classifying the remaining work descriptions may prevent full implementation from occurring by spring 2012. Assessment of the impacts of these constraints on implementation is ongoing.

Commitment	In response to...	Lead
2011-2012		
Continue transition to Standard Organization.	AG PSES	CCG MB members

By committing to act upon the results of the Public Service Employee Survey (PSES) and ensuring more open communication among managers, employees and unions, the CCG will continue to achieve excellence in our workplace and in our service to Canadians. The 2011 PSES will be administered from August 29 to September 30. CCG will look at creative ways to increase PSES response rates to ensure that survey results offer a more accurate reflection of CCG employees' needs.

Commitment	In response to...	Lead
2012-2013		
Assess the results of the 2011 PSES and disseminate findings to employees and unions.	PSES	CCG MB members

CCG will continue to promote the use of performance reviews and learning plans to support career development. During 2011-2012, our Performance Review System will be evaluated. Based on this evaluation, we will develop an action plan to improve effectiveness, aiming to increase performance review and individual learning plan completion rates, particularly for seagoing personnel.

Commitment	In response to...	Lead
2011-2012		
Evaluate the Performance Review System and develop an action plan to improve its effectiveness.	PSES	DG, IBMS
2012-2013		
Implement the action plan to improve Performance Review System effectiveness.	PSES	CCG, MB members

In 2011-2012 the College will complete the implementation of the transformation plan with improved governance structures in place and an improved capacity to deliver bilingual training. Furthermore, the College will work on developing an operational training governance framework with program partners in Fleet, Maritime Services and Integrated Technical Services.

Commitment	Lead
2011-2012	
Continue implementation of the Coast Guard College Transformation Plan.	ED, College
Develop a CCG operational training governance framework.	ED, College DG, Fleet DG, ITS DG, MS
2012-2013	
Implement the CCG operational training governance framework.	ED, College DG, Fleet DG, ITS DG, MS
2013-2014	
Evaluate the CCG operational training governance framework.	ED, College DG, Fleet DG, ITS DG, MS

Photo: Troy Mercer

2. CONSISTENT BUSINESS MANAGEMENT PRACTICES

2010-2011 ACCOMPLISHMENTS

REVIEW OF THE WORKING RELATIONSHIP WITH DFO'S HUMAN RESOURCES AND CORPORATE SERVICES

- Implemented common practices for the Duty To Accommodate and Return to Work protocols across the Coast Guard.
- Implemented a policy for consistent stand-by arrangements across functions and regions and developed a national communications strategy to ensure consistent application.

COMMUNICATION PROTOCOLS

- Implemented recommendations after reviewing communication processes and protocols in the field of emergency preparedness.

STRATEGIC PROGRAM FRAMEWORK FOR CCG'S MARITIME SERVICES

- Examined priority areas, overall performance, and future needs for Coast Guard maritime services.
- Initiated an analysis of the operations of Coast Guard maritime services, region by region, pertaining to procedures and services and how they are delivered nationally on a consistent basis.

STRONGER CANADIAN COAST GUARD IDENTITY

- Developed national standards for print publications and other products.
- Developed a corporate internal communications strategy to ensure a consistent national approach to connecting with employees.
- Developed a CCG web vision and a proposal for a sustainable Internet presence for CCG.

SERVICE LEVEL AGREEMENTS WITH DFO CLIENTS

- Developed a Service Level Agreement between Maritime Services and Fleet outlining service delivery and performance expectations.

Modernization of the Business Management and Resource Allocation Process

The Canadian Coast Guard has traditionally conducted its resource management functions, notably its allocation and reallocation of resources, based on its historical allocation and spending patterns. With the increased pressures resulting from government-wide fiscal restraints and the associated measures put in place, it is paramount that the CCG ensures that its business and resource management framework be reviewed and modernized. This will ensure that available resources are allocated, monitored, and reallocated as warranted to the strategic priorities of the organization.

Commitment	Lead
2011-2012	
Assess, modify and initiate implementation of the business management and resource allocation process for CCG.	DG, IBMS
2012-2013	
Complete implementation of new business management and resource allocation process for CCG.	DG, IBMS

Service Level Agreements with DFO Clients

In 2008-2009, the Canadian Coast Guard developed Service Level Agreements (SLAs) between Fleet and DFO Oceans and Science Sector and DFO Ecosystems and Fisheries Management Sector – Conservation and Protection. In 2009-2010, implementation of these SLAs began as a pilot project that included the development, testing, and modification of effective performance measures. In 2011-2012, the SLAs will be finalized for use on an ongoing basis. CCG already maintains formal service agreements with clients external to the Department (see section 5 on page 78 for more information on our clients and the services provided).

To increase transparency and internal accountability, in 2010-2011 CCG developed an SLA between Fleet and Maritime Services. In 2011-2012 we will be looking to implement the internal SLA on a pilot basis in order to formalize the levels of service Fleet provides to Maritime Services (Aids to Navigation, Icebreaking, Search and Rescue, and Environmental Response). The SLA will also provide Maritime Services the opportunity to define and articulate program requirements to Fleet for service delivery and provide a framework to measure service performance against agreed to expectations.

Commitment	In response to...	Lead
2011-2012		
Finalize Service Level Agreements with DFO Oceans and Science* and DFO Ecosystems and Fisheries Management** for use on an ongoing basis, based on the outcome of the pilot.	A-Base AG	DG, Fleet
Implement Service Level Agreement pilot between Fleet and Maritime Services for 2011-2012.		DG, Fleet DG, MS
Develop performance measures within Service Level Agreement pilot between Fleet and Maritime Services.		DG, Fleet DG, MS
2012-2013		
Refine performance measures within Service Level Agreement pilot between Fleet and Maritime Services.		DG, Fleet DG, MS

* *formerly* DFO Science

** *formerly* DFO Fisheries and Aquaculture Management

Stronger Canadian Coast Guard Identity

Efforts by the Canadian Coast Guard to increase its visibility and identity through a stronger national web presence continued during 2010-2011. The achievements of the previous year included the creation of a governance structure, publishing processes, and web vision to provide a core purpose for the CCG web presence. The vision, governance and publishing processes were approved by CCG Management Board in May 2010. For 2010-2011 the focus was on developing components for a web strategy and sustainability options to ensure a viable and enduring web presence for CCG.

The CCG internet site enjoys an average of 1,600 visits per day (over 3 million a year). The most popular pages are Careers and Fleet; and most visitors come to the site using search engine searches. Renewal effort to date has been very successful as exemplified by the CCG Careers page, launched March 31, 2010, with viewership up 600% over the previous year. This site is also touted as the example to follow within the Department.

Commitment	Lead
2011-2012	
Implement the approved Internet sustainability option and accompanying projects.	DG, IBMS

3. STRATEGIC PROGRAM FRAMEWORK FOR CCG'S MARITIME SERVICES

To strengthen the effectiveness and efficiency of its maritime services, CCG developed a Strategic Program Framework (SPF) that is based on the widely accepted federal program management principles outlined in the Government of Canada's Management Accountability Framework (MAF) (see Annex E). The Framework has been our central focus for systematically reviewing Coast Guard maritime services programs from a strategic perspective on an ongoing basis and has allowed us to concentrate our efforts on priority areas. Our SPF-based activities have strengthened our program management, and helped prepare the organization for the deficit reduction action plan.

In 2010-2011, we updated the maritime services action plans and further enhanced our collaboration with key partners. We worked with the programs to examine priority areas, programs' overall performance and future needs for Coast Guard maritime services, examining procedures and services to ensure that they are delivered nationally on a consistent basis.

The SPF consisted of nine elements, one of which was risk. Our SPF-based activities have identified the need to clearly communicate how risk is addressed in the decision-making process. In 2011-2012, we will develop a risk management framework and methodology for CCG's maritime services programs to more clearly articulate how risk is addressed in program management and to support decision-making. The framework and methodology will provide a description of the major components of the risk management decision process as well as a process to assist decision-makers in effectively managing risk issues.

Commitment	Lead
2011-2012	
As part of the SPF-based examination of all Coast Guard maritime services, develop a risk management framework and methodology for CCG maritime services programs to enhance program management and support decision-making.	DG, MS

4. CCG 50TH ANNIVERSARY

On January 26, 2012, the Canadian Coast Guard will celebrate 50 years of service to Canadians. Throughout 2012 the Coast Guard will celebrate its Golden Jubilee by building and strengthening Canadians' awareness of who we are and what we do. As well, recognizing that its employees are its key resources, the Agency will celebrate and commemorate its 50th Anniversary with its employees by demonstrating the pride, dedication and honour they bring to the Coast Guard every day in carrying out their duties.

Commitment	Lead
2011-2012	
Develop a national strategy, focusing on special events, commemorative products and promotional materials, to celebrate Coast Guard's 50th anniversary in 2012.	DC, Operations
Initiate implementation of national strategy.	DC, Operations
2012-2013	
Implement the national strategy through hosting or participating in events of opportunity across the country.	DC, Operations

SECTION FOUR: REGIONAL PERSPECTIVE

OVERVIEW

CCG operates in five regions. Each CCG region is led by an Assistant Commissioner, who reports to the Commissioner and is responsible for directing the day-to-day delivery of CCG programs and services in that region. While CCG plans at a national level to ensure consistency in the design and delivery of programs, the regions are responsible for program delivery.

While all five regions deliver the core CCG programs, the focus in each region is different, depending on climate, geography, and client needs. For example:

Newfoundland and Labrador Region: The Region covers more than 28,956 km of shoreline and 2.5 million km^2 of continental shelf. The Northwest Atlantic Fisheries Organization (NAFO) Regulatory Zone inside the 200 mile limit is 2.3 million km^2. The search and rescue (SAR) zone extends halfway across the Atlantic and the Region has the highest proportion of distress incidents and the largest percentage of SAR cases. The Region has approximately 1,100 employees, 18 ships, 75 small craft and three helicopters.

It has a long ice season with ice conditions and weather second only to the Canadian Arctic The regional headquarters is located in St. John's. There are five Marine Communications and Traffic Services Centres, approximately 1,700 fixed and floating aids to navigation, and four differential global positioning system transmitting stations. There are four CCG Stations and three inshore rescue boat stations.

FOR MORE INFORMATION ABOUT OUR REGIONS, PLEASE REFER TO THEIR WEBSITES:

Newfoundland and Labrador:
www.ccg-gcc.gc.ca/e0003320

Maritimes:
www.ccg-gcc.gc.ca/e0003796

Quebec:
www.marinfo.gc.ca/en/general/accueil.asp

Central and Arctic:
www.ccg-gcc.gc.ca/eng/Central_Arctic/Home

Pacific:
www.ccg-gcc.gc.ca/eng/CCG/Pacific

With the largest oil handling port in Canada, a rapidly expanding offshore oil industry and millions of tons of potential polluting cargo and vessel fuel transiting regional waters each year, the Region maintains an immediate readiness to act effectively to protect the marine environment.

Maritimes Region is home to the largest oil refinery in North America, (Canaport in Saint John, NB) and the second and third largest ports in Canada, with respect to tonnage shipped. The Region also has the world's highest tides (Bay of Fundy) and the country's first Liquefied Natural Gas (LNG) terminal. The marine economy is the primary economic driver with 300 small craft harbours and approximately 30 commercial ports to support it. The fishing industry, with a landed catch value of approximately $1 billion, is the largest and most valuable in the country. With the high volume of cargo traffic, the vast majority of which is petroleum products, the risk of a major oil spill remains very high. Unique to the Region is the operation of the Canso Canal by CCG and our responsibility for Sable Island under the *Canada Shipping Act*.

The **Quebec Region** covers 14,000 km of shoreline along the St. Lawrence, from Montreal to the Atlantic Ocean including the Magdelen Islands as well as Quebec's Arctic Region (Nunavik). The harsh weather conditions characteristic of the gulf, along with the river's narrow and sinuous course, restricted depth and ice cover from December to April, make the St. Lawrence one of the world's most difficult to navigate. The marine services provided by Quebec Region are essential to this key waterway that runs between populated banks and fragile ecosystems. Some of the typical services specific to the Quebec Region include the management of dredging along 317 km of the channel for the marine transportation industry, the monitoring of the ice cover with the assistance of a remote surveillance system and the use of icebreakers and hovercrafts for flood control.

The St. Lawrence's geographical location makes it a strategic trade route for accessing the interior of the continent. Four major Canadian ports are located in the Region and account for nearly 30% of the tonnage of cargo handled, making marine transportation in Quebec Region essential to Canada's economic prosperity. The numerous expansion projects in the mining and oil sectors, the international cruise industry boom as well as the increase in the size and number of the ships passing through the St. Lawrence are testimony to the vitality of the marine sector.

Marine transportation development and environmental concerns are equally important for the St. Lawrence and the CCG Quebec Region must take both into account. This poses significant challenges in terms of safe and environmentally friendly navigation.

Central and Arctic Region is the largest region geographically, spanning four provinces, two territories, and the Yukon North Slope. The region is home to the majority of pleasure boat owners and recreational fishers in Canada, as well as a significant proportion of commercial shipping. Most of Canada's domestic tonnage is registered and operated out of the region with commerce on the Great Lakes and St. Lawrence Seaway exceeding 180 million metric tonnes per year. Central and Arctic Region, in partnership with the United States Coast Guard and the Royal Canadian Mounted Police, delivers integrated programs on the Great Lakes.

The Region's mandate in the Arctic is evolving and expanding given the dramatic changes to the Arctic environment, climate change and sea ice conditions. It is an area of growing focus domestically and globally. Central and Arctic Region plays an operationally critical role through the deployment of icebreakers assigned to Arctic operations, the missions of which play a vital role in Arctic re-supply, the United Nations Convention on the Law Of the Sea (UNCLOS), and joint Government of Canada exercises such as Operation Nanook. Additionally, the Region provides a number of specialized services in the Arctic which support the Coast Guard fleet, the Government of Nunavut, commercial carriers, and enhance the safety and efficiency of marine transportation in the Arctic.

The **Pacific Region** marine community operates 24/7, 365 days a year, from Victoria to the Western Arctic, with nearly one half million vessel movements per year. The Region includes 27,000 km of coastlines and 560,000 km^2 of ocean.

Weather can vary dramatically across the British Colombia (BC) coast, which is known internationally as one of the world's wildest coastlines. For example, the mouth of the Juan de Fuca Strait, a large body of water about 153 km long, forming the principal outlet for BC's Georgia Strait, has been called the "Graveyard of the Pacific" due to frequent inclement weather conditions in the area.

The Region is home to Port Metro Vancouver, the most diversified and fourth largest tonnage port in North America, and a key port for the cruise industry (attracting 570,000 passengers on 177 sailings in 2010). Also located in Pacific Region is the Asia Pacific Gateway and Corridor Initiative, a transportation network facilitating global supply chains between the North American marketplace and the booming economies of Asia.

KEY INITIATIVES

NEWFOUNDLAND AND LABRADOR

Labrador Services

Ongoing production from the Voisey's Bay facility, increased ferry service between Labrador and Newfoundland and efforts to expand the Labrador cruise ship industry signify increased vessel activity along the Labrador Coast. Maritime safety remains a priority for CCG, and the rising activity on the Labrador Coast will place further demands on CCG services. While much of Labrador still requires chart modernization, the Canadian Hydrographic Service has completed soundings and charts for a corridor through the North Labrador Coast, meaning safer transit for cruise ships. The requirement for aids to navigation, search and rescue resources and VHF coverage along the Labrador Coast is under review, and the increased demand for CCG services will be monitored and managed closely.

Fishing Vessel Safety

The safety of vessels less than 65 feet participating in the offshore fishery continues to be a priority for CCG and prompted a review which identified important safety matters in the fishing industry. To enhance safety within the growing offshore fishery, on behalf of the Coast Guard, Newfoundland and Labrador Region will partner with Transport Canada and other industry stakeholders to lead the implementation of recommendations identified in the Fishing Vessel Safety review. In its role, CCG will endeavour to educate and provide awareness training to fishers, and it will continue to closely monitor its search and rescue response capability to ensure that resources are optimally allocated and utilized.

Northwest Atlantic Fisheries Organization

As a Special Operating Agency, the CCG provides support to the Department of Fisheries and Oceans through the provision of vessels to facilitate conservation and protection in waters under the jurisdiction of the NAFO. Conservation and protection remains a high government and departmental priority, and CCG will continue to work with DFO to ensure patrol vessel surveillance, armed boarding capabilities, and a sustained, visible presence in Canadian territorial waters.

MARITIMES

CCG Base Divestitures

Divestiture of the Saint John and Dartmouth Bases continues. Construction of the new Coast Guard Headquarters building at the Bedford Institute of Oceanography (BIO) is underway, with an expected completion date of November 2011 and a move-in date of February 2012. The Saint John Base move to leased space is expected to occur in 2011-2012 as well. In the meantime, the 2010 decision to divest the Charlottetown Base to make room for the development of a hotel and conference centre will require the relocation of the CCG Charlottetown operations to new premises in the Greater Charlottetown area.

With the moves, there is a need to organize and orchestrate a number of related activities to minimize the impact on employees and programs. This is a key priority for the Region.

Official Languages

In the Maritimes Region, CCG is responsible for providing programs and services in the three Maritime Provinces, including New Brunswick, which is designated as a bilingual province. In addition, the Region has the oldest CCG population in the country. Most management level positions are bilingual but the incumbents of feeder groups who aspire to these positions are either not bilingual or are not at the level required. This creates additional challenges and pressures for developmental training. Recognizing the unique challenges presented, the Region will continue to focus on enhancing its overall bilingual capacity by providing ongoing maintenance training and renewing its approach to developmental second language training.

Storm Damage

In December 2010, the Maritimes Region was subject to a series of winter storms which brought with them above normal high tides and storm surges that caused significant damage to a number of fixed aids especially in the Gulf of St. Lawrence, Northumberland Strait and Cape Breton. In the aftermath of the storms, 24 fixed aids to navigation sites were identified for repair after suffering various levels of damage. Coast Guard in Maritimes Region has been allocated $765.6K to repair these sites and undertake surveys during 2011-2012.

QUEBEC

Pre-deployment of all-season buoys

This initiative is an important step towards the progressive deployment of all-season buoyage in a large part of Quebec Region's navigable waters. It was made possible through national funding for research and development. The all-season buoy is an efficient innovation also of benefit to other CCG Regions.

Transiting of the post-Panamax[3] type vessels on the St. Lawrence Waterway

In 2011–2012, CCG will continue to work on this project of importance for the marine industry. An action plan will be developed with a view of implementing recommendations from the risk assessment report completed in 2010–2011. As part of the action plan, CCG in cooperation with Transport Canada and pilots, will work on items such as transit rules, modifications to service delivery methods as well as operational rules and directives regarding the transiting of post-Panamax type vessels in the St. Lawrence River shipping channel.

CENTRAL AND ARCTIC

Mid-Shore Security Patrol Vessels

The first of three new Mid-Shore Patrol Vessels will be delivered to the Central and Arctic Region in 2012. The Region will operationalize the vessels which will be used by the joint Royal Canadian Mounted Police/Canadian Coast Guard Marine Security Enforcement Teams to support on-water enforcement and responsiveness along the Great Lakes and St. Lawrence Seaway system.

2011 Operation Nanook

Central and Arctic will participate in the 5th Annual Department of National Defence-led Operation Nanook 2011, which will take place in the Arctic area of Lancaster Sound in August. Regional participation in Operation Nanook has continued to expand in scope and complexity over the last five years to include Fleet, Marine Communications and Traffic Services, Search and Rescue, Environmental Response, and Joint Rescue Coordination Centre resources.

Year-round Lit Buoys

Work is ongoing in conjunction with the United States Coast Guard to implement multi-year, year-round lit buoys for use in all main channels.

Small Craft Harbour in Pangnirtung, Nunavut

Economic Action Plan funding has been provided to build a small craft harbour in Pangnirtung, Nunavut. Central and Arctic's role in this project is to design, purchase, and install an aids to navigation system in the harbour.

Navigational Areas

On July 1, 2010, Central and Arctic Region Marine Communications and Traffic Services in Prescott, Ontario, began broadcasting NAVAREA warnings in an "Initial Operational Condition" status. Starting in 2011-2012, the service will be in a "Full Operational Condition" status, and NAVAREA warnings will be available on a year-round basis to mariners in Arctic waters through use of the INMARSAT-C satellite service. For vessels outside the northern edge of the INMARSAT-C satellite 'footprint' (High Arctic above 76°N), the warnings will be disseminated using high frequency radio transmitting equipment on a seasonal basis.

PACIFIC

In 2011–14, Pacific Region will undertake initiatives that will increase both operational efficiency and service to clients. It will also receive and operationalize five vessels allotted to the Region under the Economic Action Plan. Further, Pacific Region will continue to focus on the monitoring of its facilities and equipment in order to continue to meet service demands resulting from increased vessel traffic. The following are regional key initiatives:

---

[3] Panamax vessels are those whose dimensions are such that they can fit through the locks of the Panama Canal. Post-Panamax vessels are larger than Panamax vessels, and they therefore cannot fit through the locks of the Panama Canal. These vessels are usually more than 32.2 metres wide.

National Communications Control System

Install new national Communications Control System equipment at the five Marine Communication and Traffic Services Centres.

Implementing a Common Data Format and Standard for Reporting Channel Bottom Condition Information

Pacific Region is collaborating with key regional partners to implement a common data format and standard for reporting channel bottom condition information. This initiative will improve information sharing and distribution between the Canadian Coast Guard, Public Works and Government Services Canada, Port Metro Vancouver and the Fraser River Pilots. The Region will also be working with CCG Headquarters to ensure the data formats are aligned with Coast Guard's national e-navigation initiative and conform to International Hydrographic Organization and International Maritime Organization standards.

As a result, the reporting system for channel condition information will be greatly enhanced and key users will be able to make better decisions in a timely manner concerning their transit windows and vessel draught on the Fraser River.

Casualty Tracking System (CasTrack)

Pacific Region has developed a passenger accountability system, the Casualty Tracking System (CasTrack). The Region will continue to promote the CasTrack system to local emergency responders in an effort to ensure a more effective response to marine disasters.

Environmental Response Vessels

In 2011 Pacific Region will receive and operationalize two environmental response vessels which will be based in Prince Rupert and Vancouver.

Cape Class Search and Rescue 47-foot Motor Lifeboats

In 2011, Pacific Region will receive and operationalize three Cape Class Search and Rescue 47-foot motor lifeboats. The CCGS *Cape Dauphin* will be based in Prince Rupert, the CCGS *Cape Naden* will be based in Sidney, and the CCGS *Cape Palmerston* will be based in Campbell River.

Prince Rupert Port Authority

British Columbia's Prince Rupert Port Authority has expanded its container port to be capable of handling post-Panamax[4] container ships and has quadrupled the terminal's capacity to two million TEUs (Twenty Foot Equivalent Units). As a result of this initiative, the shipping industry in the Region is expanding. Marine Navigation Services in Pacific Region will continue to monitor and assess its facilities and equipment in the area to ensure these continue to meet demand and that navigation continues to be properly managed.

---

[4] Panamax vessels are those whose dimensions are such that they can fit through the locks of the Panama Canal. Post-Panamax vessels are larger than Panamax vessels, and they therefore cannot fit through the locks of the Panama Canal. These vessels are usually more than 32.2 metres wide.

SECTION FIVE: WHAT WE DO EVERY DAY

5

This section describes, by Program Activity and Program Sub-Activity, the day-to-day activities related to the programs and services Coast Guard provides to Canadians. It also highlights areas where significant investment is occurring and notes key initiatives aimed at improving the delivery of programs and services.

OVERVIEW OF FINANCIAL AND HUMAN RESOURCES

Table 1 : CCG Planned Spending by Program Activity

Program-Activity	Salary	Operations and Maintenance (O&M)*	Total Operating	Major Capital***	Grants and Contributions	Total Planned Spending**
Aids to Navigation Services	12,626	6,134	18,760	0	–	**18,760**
Waterways Management Services	2,965	6,258	9,222	0	–	**9,222**
Marine Communications and Traffic Services	33,645	6,240	39,885	0	–	**39,885**
Icebreaking Services	1,005	9,150	10,155	0	–	**10,155**
Search and Rescue Services	12,059	4,047	16,106	0	4,921	**21,027**
Environmental Response Services	6,495	2,949	9,443	0	–	**9,443**
Maritime Security	4,823	2,723	7,545	0	–	**7,545**
Canadian Coast Guard College	8,118	4,756	12,874	0	–	**12,874**
Fleet Operational Readiness	180,356	70,620	250,975	226,607	–	**477,582**
Shore-Based Asset Readiness	55,209	25,006	80,215	49,586	–	**129,801**
Total	**317,299**	**137,882**	**455,181**	**276,194**	**4,921**	**736,405**

** O&M includes fuel for Ecosystems and Fisheries Management, Oceans and Science Sector & NAFO*

*** Excludes Vote-Netted Revenue (VNR)*

**** Includes over-programming*

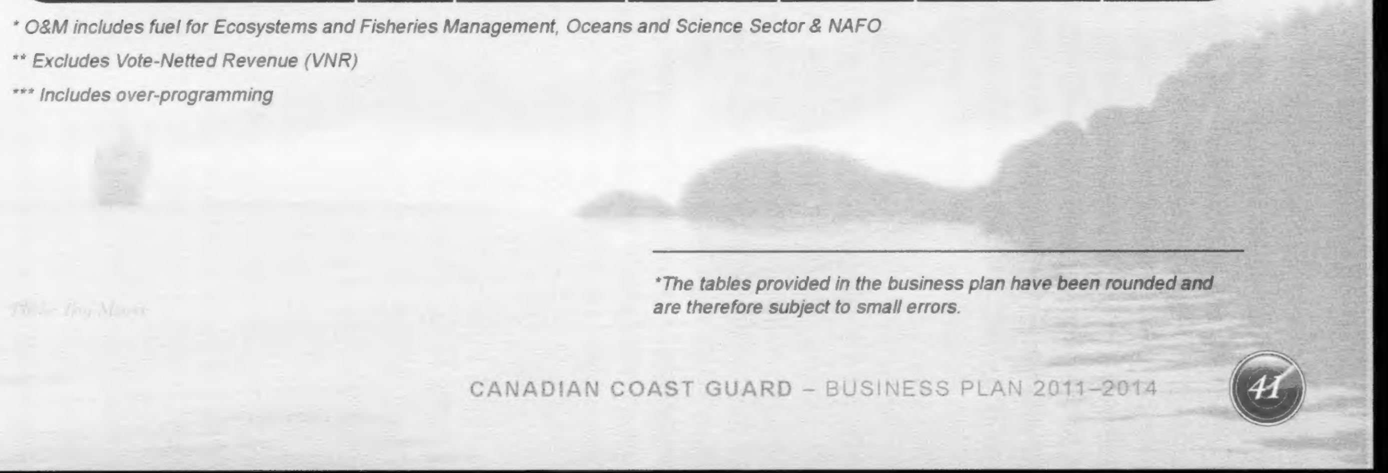


Photo: Troy Marie

**The tables provided in the business plan have been rounded and are therefore subject to small errors.*

Table 2 : CCG Service Costs by Program Activity, 2011-2012 (thousands of dollars)

Program Activity	Direct Program Operating	Allocation of Operating From: Fleet Operational Readiness	Allocation of Operating From: Shore-Based Asset Readiness	Total Service Cost (Operating)
Aids to Navigation Services	18,760	39,313	33,828	**91,902**
Waterways Management Services	9,222	1,000	691	**10,913**
Marine Communications and Traffic Services	39,885	1,364	16,201	**57,450**
Icebreaking Services	10,155	40,841	9,459	**60,455**
Search and Rescue Services	16,106	89,372	16,560	**122,037**
Environmental Response Services	9,443	873	691	**11,007**
Maritime Security	7,545	15,121	2,605	**25,271**
Canadian Coast Guard College	12,874	–	180	**13,054**
Total Coast Guard Program	**123,991**	**187,883**	**80,214**	**392,089**

Table 3 : Total Number of CCG Full-time Equivalents (FTEs) – Utilization by Program Activity

Program Activity	O&M FTEs	Major Capital FTEs	Total FTEs
Aids to Navigation Services	201		**201**
Marine Communications and Traffic Services	40		**40**
Icebreaking Services	447		**447**
Search and Rescue Services	18		**18**
Environmental Response Services	124		**124**
Maritime Security	80		**80**
Canadian Coast Guard College	23		**23**
Fleet Operational Readiness	2869	137	**3006**
Shore-based Asset Readiness	853	62	**915**
Total	**4,657**	**199**	**4,856**

Figure 2: Financial Allocations by Region, 2011-2012

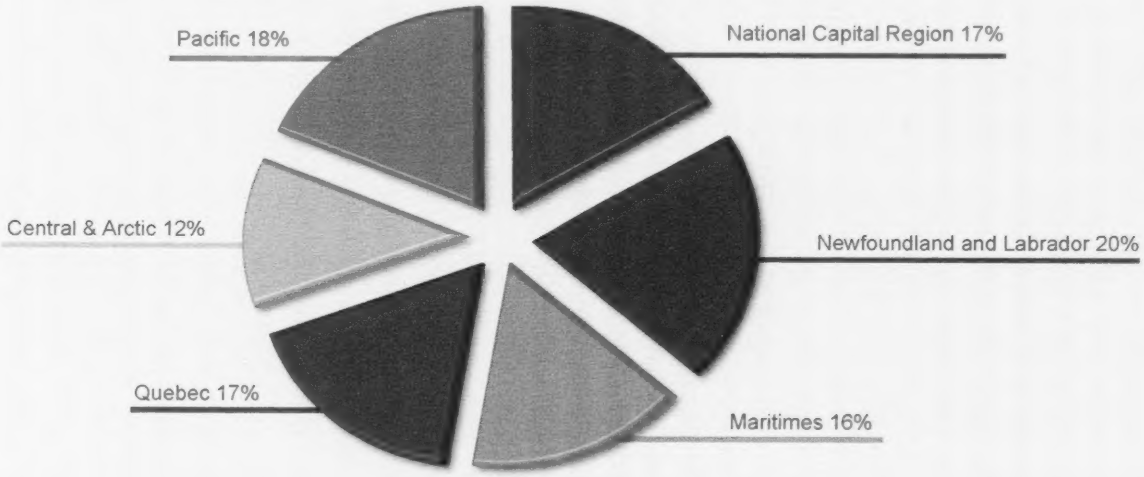


Photo: Troy Morse

SERVICES BY PROGRAM ACTIVITY AND PROGRAM SUB-ACTIVITY

AIDS TO NAVIGATION

The Aids to Navigation program provides marine aids to navigation such as short-range marine aids—including visual aids (fixed aids and buoys), sound aids (fog horns), and radar aids (reflectors and racons)—as well as long-range marine aids, namely the Differential Global Positioning System (DGPS). The program's services ensure access to a reliable navigation system and support a safe, accessible, and efficient environment for the commercial marine transportation sector, fishers and pleasure craft operators. As such, it is the cornerstone of Canada's navigation system and provides essential support to many government priorities.

2010-2011 ACCOMPLISHMENTS

AIDS TO NAVIGATION

- Developed agreements between the Aids to Navigation program and its service providers to define each group's respective roles and responsibilities.
- Completed the modernization of the aids to navigation directives.

Photo: Troy Maxner

What we do...

The program helps mariners navigate safely and efficiently by:

- Operating a system of floating, fixed, and electronic aids to navigation;
- Monitoring the reliability and relevance of the Canadian aids to navigation system;
- Ensuring the application of national standards for aids to navigation;
- Providing and distributing safety information such as the Notices to Mariners (NOTMAR) and Canada's List of Lights publications; and
- Regularly consulting with clients at the local level regarding implementation of and changes to aids to navigation systems.

The Aids to Navigation program is delivered by...

- **CCG Maritime Services** staff, who define and design the aids to navigation system. They manage the service by developing policies, standards, procedures, and guidelines. Through consultations and communication they monitor, evaluate, and improve program performance. In addition, they provide advice, and subject-matter expertise at marine-related intergovernmental and international for a. Maritime Services staff also maintains the CCG's Notices to Mariners website, http://notmar.gc.ca which provides mariners with updated navigation safety information.

- **CCG Aids to Navigation** staff, strategically located across Canada, are responsible for providing aids to navigation services and navigational safety information to mariners.
- **CCG Fleet**, which is the principal asset used by CCG's Aids to Navigation program to tend and retrieve floating aids to navigation.
- **CCG Integrated Technical Services**, which implements a lifecycle management system to ensure that both our electronic and traditional aids to navigation assets are capable, reliable, and available.
- **DFO Real Property Directorate**, which is responsible for the lifecycle management of some major aids to navigation.
- **Various contractors**, who complement the service work performed by CCG Fleet.

Who we serve...

The Aids to Navigation program's main clients are the shipping industry, recreational boaters, commercial fishers, and pilots, as well as the various associations and committees that represent them. The program generally engages its clients to ensure they understand the program's levels of service, to identify gaps in service delivery, and to foster meaningful exchanges to address user needs while ensuring that expectations are realistic. Client engagement is accomplished through existing media, such as the CCG website, printed media, and various meetings and sessions with regional representatives. The program also engages its clients via various fora, such as meetings of the National and Regional Canadian Marine Advisory Councils, the Regional Marine Advisory Boards, the Local Marine Advisory Councils and the Regional Recreational Boating Advisory Councils.

Looking forward...

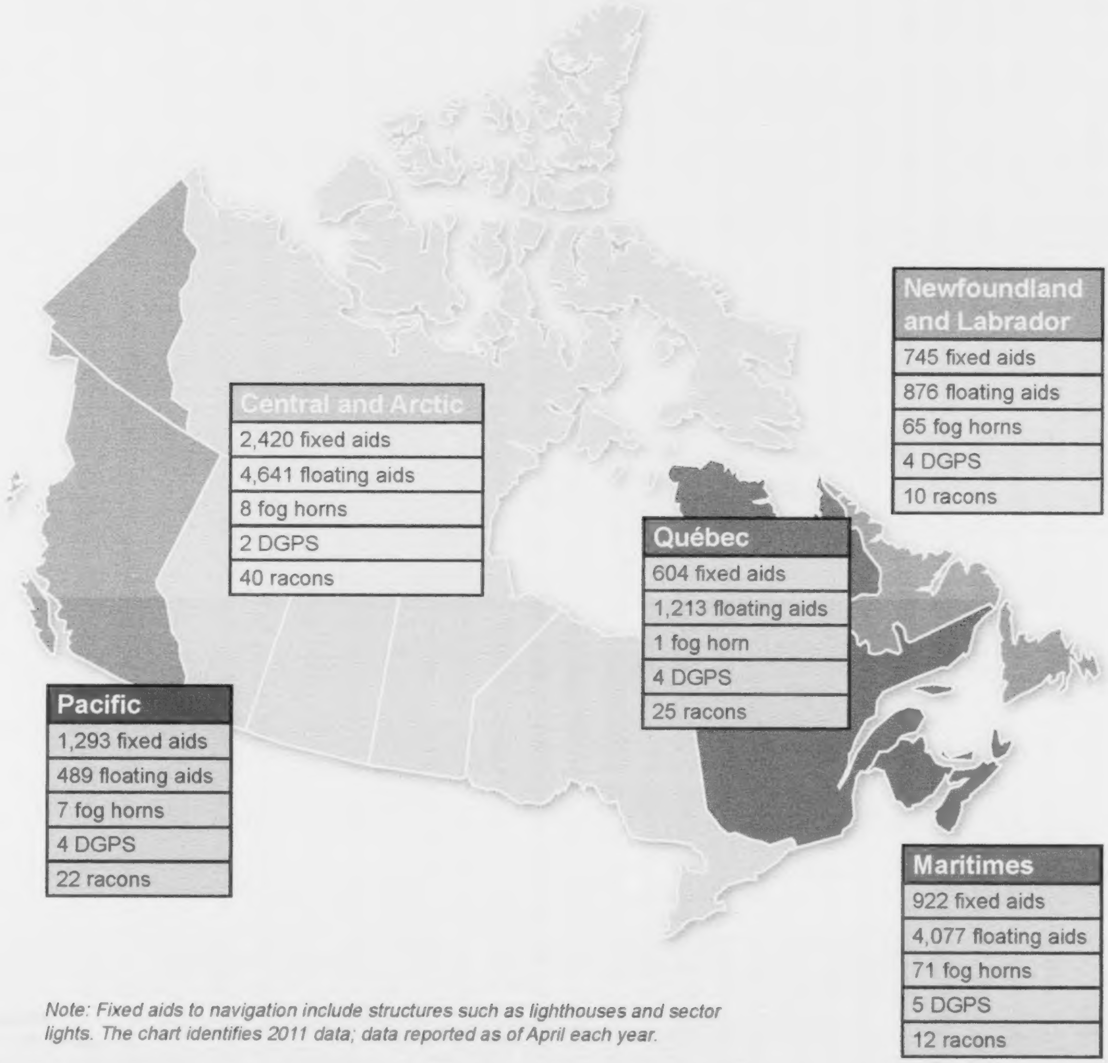
CCG continues to look at ways to leverage new technology, to ensure the safety of mariners and to consistently meet service standards to its clients. As an example, the program now benefits from a lighting system relying almost exclusively on Light-Emitting Diode (LED) / LED-solar technology. Also, where practical, buoys are now made of plastic, which greatly reduces reliance on large vessels for their tending and maintenance costs. We are continuing to find ways to improve the way we deliver and maintain our services, such as the implementation of four-season lighted buoys that is expected to decrease maintenance requirements while providing mariners with enhanced services during winter.

In 2011-2012, the program will continue to identify and implement continuous improvement initiatives to enhance the Canadian aids to navigation system. For example, to ensure the program's operations reflect the new technological realities and the needs of today's mariners, we will initiate the review and update of the methodology for designing and reviewing short-range aids to navigation systems. Furthermore, the program will fully contribute to the government's effort to conserve and protect the most significant examples of Canadian heritage by supporting the principles of the *Heritage Lighthouse Protection Act*.

CCG is a partner in the Small Craft Harbour's multi-year project to construct a harbour in Pangnirtung, Nunavut. CCG's role in this project is the design, acquisition and installation of an aids to navigation system for the harbour. Work on the system design was undertaken in 2010 as well as a site visit, survey work, levels of service review and acquisition of four tower structures. In 2011, CCG will continue the project with the installation of the towers along with lanterns and daymarks.

The advent of e-navigation and its many possibilities is also being monitored for potential impacts and opportunities, such as the introduction of virtual aids to navigation, along with the Automatic Identification System, to better meet the changing needs of our clients. The program will also work toward standardizing the levels of service provided to clients across CCG's five regions.

Commitment	Lead
2011-2012	
Initiate the review and update of the methodology for designing and reviewing short-range aids to navigation systems.	DG, MS
Continue the design and construction of an aids to navigation system for Pangnirtung Harbour, Nunavut.	AC, C&A



Central and Arctic
2,420 fixed aids
4,641 floating aids
8 fog horns
2 DGPS
40 racons

Newfoundland and Labrador
745 fixed aids
876 floating aids
65 fog horns
4 DGPS
10 racons

Québec
604 fixed aids
1,213 floating aids
1 fog horn
4 DGPS
25 racons

Pacific
1,293 fixed aids
489 floating aids
7 fog horns
4 DGPS
22 racons

Maritimes
922 fixed aids
4,077 floating aids
71 fog horns
5 DGPS
12 racons

Note: Fixed aids to navigation include structures such as lighthouses and sector lights. The chart identifies 2011 data; data reported as of April each year.

Aids to Navigation Services

Provides these services...	Measured this way...*	With these targets...
Operational aids to navigation systems	Percentage of time an aid has been operating properly versus time it was expected to be operational (mission time), over a 3-year average	99%
Publication of Notice to Mariners	Percentage of publications of the monthly Notice to Mariners (NOTMAR) published within CCG's Levels of Service	100%

To achieve this result...	Measured this way...*	With these targets...
Commercial shipping industry and mariners have access to reliable aids to navigation systems that allows safe and efficient navigation	Percentage of Aids to Navigation systems reviewed and confirmed to be reliable through cyclical review versus number of systems	20%

**These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Table 4 : Aids to Navigation Resource Profile, 2011-2012 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	3,300	484	**3,785**
Maritimes	1,050	1,548	**2,598**
Quebec	679	76	**755**
Central and Arctic	912	569	**1,482**
Pacific	3,906	1,342	**5,249**
National Capital Region	2,778	2,114	**4,892**
Direct Program Total	**12,626**	**6,134**	**18,760**
Fleet Operational Readiness Allocation	28,251	11,062	**39,313**
Shore-Based Asset Readiness Allocation	23,283	10,545	**33,828**
Total Service Cost	**64,160**	**27,742**	**91,902**

**Salary differences between regions are largely due to variations in activities related to lighthouses. Of 246 Canadian major lighthouses, 51 are staffed. CCG maintains 23 staffed lighthouses in the Newfoundland and Labrador Region, 27 in the Pacific Region, and, for sovereignty reasons, 1 in the Maritimes Region. Canada is one of the few countries that continue to staff lighthouses.*

Reinvestment in the asset base

We expect to spend $13.0 million in 2011-2012 on capital projects to refurbish, modernize, or divest these assets or their components: floating aids, minor and major fixed aids structures and other aids infrastructure.

WATERWAYS MANAGEMENT

Navigability in Canadian waterways is highly influenced by water levels and the bottom condition of shipping channels. The monitoring and maintenance services provided by the Waterways Management program enable CCG to help ensure safe, economical, and efficient movement of ships in Canadian waterways. These services also contribute to the maintenance of specific navigable channels, reduce marine navigation risks, and support environmental protection.

2010-2011 ACCOMPLISHMENTS

WATERWAYS MANAGEMENT

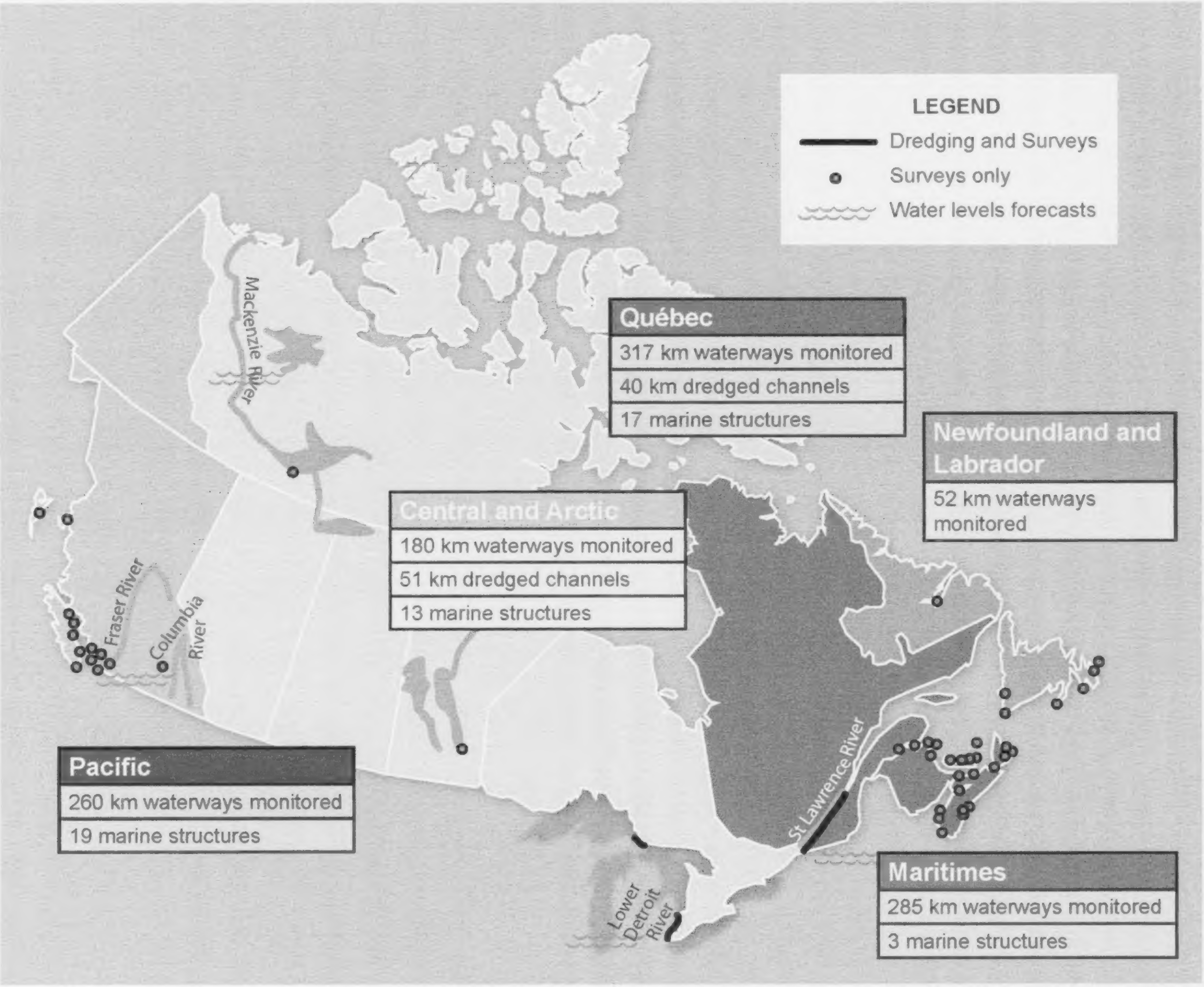
- Completed the national directives on surveys and dredging services as well as consultation with key stakeholders.
- Completed the Post-Panamax risk assessment report and an analysis of its recommendations took place in collaboration with Transport Canada and clients.

What we do...

- Monitor channel bathymetry[5] by surveying commercial channels to identify the bottom conditions, as well as restrictions on or hazards to safe navigation, and provide this information to mariners, pilots and other stakeholders;
- Provide water-depth forecasts in the commercial channels in the St. Lawrence, Detroit, St. Clair, Fraser, and Mackenzie Rivers;
- Manage channel dredging in specific areas;
- Maintain marine structures that help manage currents and water levels, wave climates, sedimentation rates and patterns, and scour and erosion. These structures also reduce channel maintenance needs; and Provide guidelines and analysis on channel design and use, contribute to the international control of water levels in the St. Lawrence River, and operate the Canso Canal.

---

[5] *Bathymetry – the measurement of the depth of bodies of water*


LEGEND
Dredging and Surveys
Surveys only
Water levels forecasts
Québec
317 km waterways monitored
40 km dredged channels
17 marine structures
Newfoundland and Labrador
52 km waterways monitored
Central and Arctic
180 km waterways monitored
51 km dredged channels
13 marine structures
Pacific
260 km waterways monitored
19 marine structures
Maritimes
285 km waterways monitored
3 marine structures
Mackenzie River
Fraser River
Columbia River
St Lawrence River
Lower Detroit River

The Waterways Management program is delivered by…

- **CCG Maritime Services** staff, who define and design the waterways management program. They manage the service by developing policies, standards, procedures, and guidelines through consultations and communication. They also analyze survey results, calculate water-depth forecasts to inform stakeholders and manage dredging projects. The Waterways Management staff continuously plan, monitor, evaluate, and improve program performance. In addition, they provide advice, guidance and subject-matter expertise through marine-related intergovernmental and international fora.
- **CCG Waterways Management** personnel who provide highly technical expertise on questions related to the safe passage of vessels in the Canadian waterways. In particular, they offer mariners underwater information they cannot obtain elsewhere. Waterways management personnel are located in all CCG regional offices, as well as in Headquarters.
- **Canadian Hydrographic Service (CHS)**, **CCG Fleet**, and **Environment Canada**, which provide services such as conducting bottom-sounding surveys in specific waterways and providing forecasts of water-level depth so mariners can plan safe and efficient passage, and maximize their cargo.
- **Public Works and Government Services Canada (PWGSC)**, which provides services such as bottom-sounding surveys, dredging, and the disposal of sediments.
- **DFO Real Property Directorate**, which is responsible for the lifecycle management of marine structures.
- **CCG Integrated Technical Services**, which is responsible for managing the hardware related to MarInfo communication system.

Who we serve…

The Waterways Management program's main clients are mariners, pilots, the shipping industry, channel owners and operators, ferry operators, and fishers, as well as the various associations and committees that represent them. The program generally engages with clients to share program vision and direction, identify perceived gaps or existing variations in service delivery, and foster meaningful exchanges to address user needs while ensuring that expectations are realistic. This is accomplished through the existing media, such as the CCG website and various printed media, as well as workshops and information sessions. Clients are also informed through various fora, such as meetings of the National and Regional Canadian Marine Advisory Councils.

Looking forward…

The Waterways Management program is influenced by the trend to bigger and faster vessels, increasing pressure to maximize water levels and channel depths for optimum loading, climatic change, safety manoeuvring limits, and the need to balance between environmental and economical interests. These issues increase the need to maintain our engineering guidelines for the design, maintenance and utilization of commercial channels. Users continue to ask for accurate waterways conditions such as water-depth forecasts and channel-bottom information.

In this context, the program needs to be constantly aware of innovations in technologies and management practices that can support more efficient operations. Well-managed partnerships contribute to the efficient coordination of the program's activities and help prevent duplication of activities with internal and external partners such as PWGSC and CHS (channel-bottom monitoring), and Environment Canada with CHS (available water forecasts). One example of a well-managed partnership is that with DFO Real Property for the maintenance and refurbishment of marine structures. Because many of these structures are in very poor condition, there is a need to jointly develop and implement an investment plan for them.

The Waterways Management program is continually evaluating and integrating new initiatives to improve the information it provides to its clients. For example, the program is deeply involved in the MarInfo project in Quebec Region, the AVADEPTH service in Pacific Region and in the definition and implementation of e-navigation in Canadian waters. As reported under the "e-navigation" priority in Section 3, (see page 25) the program will work on a report based on the gap analysis readiness assessment that addresses the e-navigation data sources and services. As well, work will get underway on the development of a national e-navigation portal.

Waterways Management

Provides these services...	Measured this way...*	With these targets...
Dredged channels of the Canadian portions of the Great Lakes connecting Channels and St. Lawrence River maintained and managed	Percentage of channel areas dredged vs. those requiring dredging (Canadian portions of the Great Lakes connecting channels and St. Lawrence only)	100%
Publication of channel surveys	Percentage of time surveys published within CCG's LOS	100%

To achieve this result...	Measured this way...*	With these targets...
Commercial shipping industry and mariners are provided with channel management services and information to facilitate accessibility of main commercial shipping channels	Percentage of Notice to Shipping (NOTSHIPS) published within CCG's Levels of Service	100%

**These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Table 5 : Waterways Management Services Resource Profile, 2011-2012 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador		7	**7**
Maritimes	875	100	**975**
Quebec	1,132	3,643	**4,775**
Central and Arctic	86	736	**822**
Pacific	261	19	**280**
National Capital Region	610	1,753	**2,363**
Direct Program Total	**2,965**	**6,258**	**9,222**
Fleet Operational Readiness Allocation	719	281	**1,000**
Shore-Based Asset Readiness Allocation	475	215	**691**
Total Service Cost	**4,159**	**6,754**	**10,913**

Key initiative

Post-Panamax Study, St. Lawrence River

Given the increase in marine traffic that is widely expected to occur in the near future, Canadian ports are seeking ways to increase their competitiveness. Shipping industry representatives have informed CCG and Transport Canada of their plans to use new-generation post-Panamax[6] vessels, especially on the restricted channel of the St. Lawrence River between Quebec City and Montreal. Post-Panamax vessels do not meet current CCG guidelines for allowing vessels to travel in both directions in some sections of the shipping channel.

At the request of shipping industry representatives, a risk assessment to aid in the decision to authorize wide-beam vessels to navigate the St. Lawrence River up to the port of Montreal was prepared, in partnership with Transport Canada (TC) and the Laurentian Pilotage Authority. In 2010-2011 the risk assessment report was completed and its recommendations were analyzed by CCG and TC. In 2011-2012, the objective is to continue to work on this project of importance to the marine industry and to develop an action plan with a view of implementing recommendations from the risk assessment report. As part of the action plan, CCG in cooperation with Transport Canada and pilots will work on items such as transit rules, modifications to service delivery methods as well as operational rules and directives, regarding the transiting of post-Panamax type vessels in the St. Lawrence River shipping channel.

Commitment	Lead
2011-2012	
Develop an action plan with a view of implementing recommendations of the risk assessment report on post-Panamax type vessels in the St. Lawrence River shipping channel.	AC, QUEBEC DG, MS

Reinvestment in the asset base

We expect to spend $3.8 million in 2011-2012, as part of the long-term objective to restore the charted depths and full design widths of the Canadian portions of the Great Lakes connecting channels.

---

[6] *Panamax vessels are those whose dimensions are such that they can fit through the locks of the Panama Canal. Post-Panamax vessels are larger than Panamax vessels, and they therefore cannot fit through the locks of the Panama Canal. These vessels are usually more than 32.2 metres wide.*

MARINE COMMUNICATIONS AND TRAFFIC SERVICES

Safety of mariners and environmental protection in Canadian waters is highly dependent on the efficient and timely communication of information. With centres located across Canada, the Marine Communications and Traffic Services (MCTS) program is CCG's communication backbone. By ensuring that an efficient communication system is available 24/7, the program contributes to the safety of life at sea, the protection of the marine environment, the efficient movement of shipping in waterways, and the provision of essential and accurate information to mariners. Its services are essential to deploying Search and Rescue and Environmental Response teams promptly and effectively to maritime crisis situations. MCTS is, in many situations, the only means by which a ship's call for assistance can be heard.

What we do...

- Manage vessel traffic by monitoring vessel movements and providing information services to assist the on-board navigational decision-making process to contribute to mariners safety and prevent pollution;
- Monitor for distress, coordinate distress communications and disseminate maritime safety information to mariners at sea;
- Provide vessel screening to ensure vessels intending to enter Canadian waters request clearance and comply with applicable Canadian regulations;
- Manage an integrated marine traffic information system in support of activities of other government departments, agencies or marine industry including the initiation of the emergency response network; and
- Support maritime domain awareness by providing vessel movement information to other government departments and to the CCG component of Marine Security Operations Centres.

2010-2011 ACCOMPLISHMENTS

MARINE COMMUNICATIONS AND TRAFFIC SERVICES

- Worked with Integrated Technical Services towards the development of a Service Level Agreement for MCTS systems maintenance support.
- Developed competency profiles and delivered an MCTS Continuing Proficiency Training (refresher) course for existing Marine Communications and Traffic Services Officers.

NAVAREAS

- Started test transmissions of navigational safety information for the two NAVAREAs in July 2010.

CANADA SHIPPING ACT 2001

- Implemented the *Northern Canada Vessel Traffic Services Zone Regulations* (NORDREG) on July 1, 2010.

The Marine Communications and Traffic Services program is delivered by...

- **CCG Maritime Services** staff, who define and design the provision of MCTS by developing policies, standards, guidelines, and procedures. Through consultations and communication, they continuously plan, monitor, evaluate, and improve program performance. They also provide advice, guidance, and subject-matter expertise through marine-related inter-governmental and international for a. In addition, they also maintain the Radio Aids to Marine Navigation (RAMN) publications which provides mariners with updated navigation safety information.

- Approximately 350 certified **MCTS Officers**, who work in 22 MCTS Centres strategically located across Canada, coordinating distress and safety communications and regulating vessel traffic in selected Canadian waters. MCTS Officers also issue navigational warnings concerning the operational status of navigational aids and dangers to navigation and report ships of particular interest to authorities.
- **CCG Integrated Technical Services (ITS)**, which implements a lifecycle management system to ensure that MCTS equipment, systems and remote radio site facilities are capable, reliable, and available.
- **DFO Real Property Directorate**, which is responsible for the lifecycle management of MCTS Centres.
- **Environment Canada (EC) and Transport Canada (TC)**, through Memoranda of Understanding. EC supplies essential marine weather and ice information and TC provides the regulatory regime for Vessel Traffic Services and ship radio requirements.
- The **United States Coast Guard**, which manages (via a treaty) vessel traffic management in the Juan de Fuca Strait, and on the Detroit and St. Clair rivers (via a bilateral agreement).

Who we serve...

The MCTS program's main clients are mariners – including commercial fishers, recreational boaters, commercial shippers and pilots – and the various associations and committees that represent them. The program generally engages with its clients to promote understanding and to encourage feedback on the services it provides. This is achieved through existing media, such as the CCG website, Notices to Mariners and various printed media. Clients are also informed through various fora, such as meetings of the National and Regional Canadian Marine Advisory Councils, the National and Local Marine Advisory Councils, and the Recreational Boating Advisory Council.

Looking forward...

The MCTS program is highly influenced by new technology driven by international fora such as the International Maritime Organization and the International Telecommunication Union; changes in the marine transportation industry, which has seen the introduction of larger and faster vessels; and by heightened security concerns. For example, the introduction of the Automatic Identification System is expected to offer opportunities for increased efficiencies in the delivery of the MCTS program. As the program is highly dependent on good asset condition and life cycle support to ensure continuous operation, the program also requires a national Service Level Agreement with Integrated Technical Support to ensure MCTS Levels of Service and standards are met.in a cost effective manner. Process and procedures will have to be developed to ensure that targeted service standards for the most critical services are met.

To ensure the continuity of the MCTS program, the CCG MCTS Officer ab-initio training program accepts approximately 20 candidates each year, and ensures they receive standardized up-to-date training. The program's graduation rate is approximately 83%, which is very encouraging given the fact that the MCTS Officers (Radio Operations) are one of the five at-risk groups in the CCG's Strategic Human Resources Plan. The MCTS program continuously strives for greater efficiency in the delivery of its services. In this regard, MCTS undertook a workload review and during 2011-2012 it will focus on developing an action plan addressing the recommendations.

Commitment	Lead
2011-2012	
Develop an action plan to address recommendations from the workload review.	DG, MS

Marine Communications and Traffic Services

Provides these services…	Measured this way…*	With these targets…
Response to distress and safety communications	Percentage of calls responded to as per CCG's published Levels of Service (LOS)	100%
Vessel traffic and waterway information in vessel traffic services (VTS) zones	Percentage of vessel traffic and waterway information is provided to regulated vessels (in vessel traffic services zones) as per CCG's published LOS	100%
Requests for vessels to enter Canadian waters are responded to	Percentage of offshore clearances granted or denied out of the total number of vessels requesting entrance to Canadian waters from sea	100%

To achieve this result…	Measured this way…*	With these targets…
Vessels can transit Canadian waters safely	Percentage of total number of collisions, strikings, and groundings out of the total vessel movements within vessel traffic system (VTS) zones	<1%

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

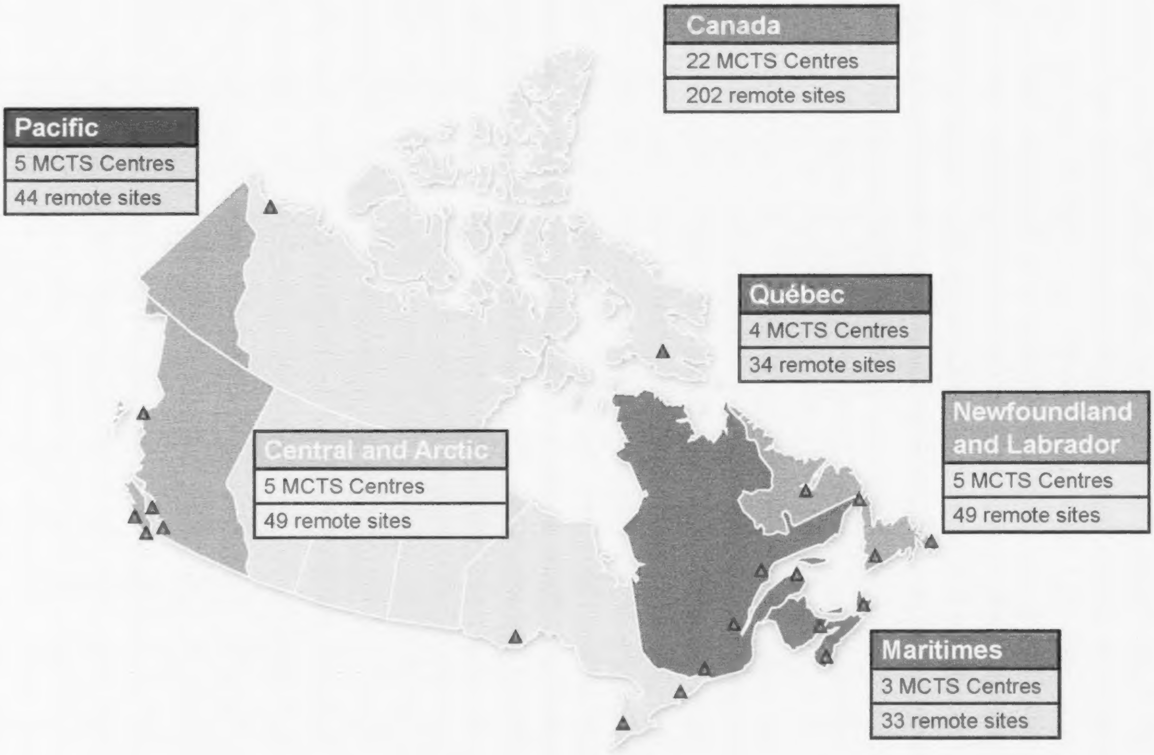

Canada
22 MCTS Centres
202 remote sites
Pacific
5 MCTS Centres
44 remote sites
Québec
4 MCTS Centres
34 remote sites
Newfoundland and Labrador
5 MCTS Centres
49 remote sites
Central and Arctic
5 MCTS Centres
49 remote sites
Maritimes
3 MCTS Centres
33 remote sites

Table 6: Marine Communications and Traffic Services Resource Profile, 2011-2012 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	5,352	827	**6,179**
Maritimes	5,353	592	**5,945**
Quebec	6,152	378	**6,530**
Central and Arctic	4,443	1,714	**6,157**
Pacific	8,963	1,445	**10,408**
National Capital Region	3,383	1,284	**4,667**
Direct Program Total	**33,645**	**6,240**	**39,885**
Fleet Operational Readiness Allocation	980	384	**1,363**
Shore-Based Asset Readiness Allocation	11,151	5,051	**16,201**
Total Service Cost	**45,776**	**11,675**	**57,450**

Key initiatives

NAVAREAs

NAVAREAs are geographical sea areas established by the International Maritime Organization (IMO) to coordinate the transmission of navigational warnings to mariners. In October 2007, the IMO confirmed Canada in its role as international coordinator and issuing service for navigational warnings for two NAVAREAs in the Arctic. The broadcasting and coordinating of navigational warnings began, in initial operational capacity, in July 2010. They are handled from Prescott MCTS Centre via the INMARSAT SafetyNET satellite service using the English language.

CCG will initiate the NAVAREA SafetyNET satellite transmission service, in full operational capacity, in 2011-2012. Starting in 2012-2013 the CCG will acquire high-frequency radio transmitting equipment to support the broadcast for the High Arctic (above 76°N). By the start of the 2014 arctic navigation season, CCG will officially launch high frequency radio transmissions of both meteorological and navigational information in the High Arctic.

Commitment	Lead
2011-2012	
Initiate the NAVAREA satellite transmission service.	DG, MS AC, C&A
2012-2013	
Start acquisition of the high-frequency radio transmitting equipment for the High Arctic.	DG, MS AC, C&A

Marine Communications and Traffic Services Technical Training (MCTS)

The development of a continuous training framework for the MCTS program is critical to CCG operations. This framework will include a variety of initiatives to support the MCTS workforce of about 350 certified Marine Communications and Traffic Services Officers (MCTSOs) to ensure professional development and adequate recruitment.

In 2010-2011, work on the training framework continued with the development of competency profiles, the creation of a national Continuous Proficiency Training (refresher) course, development of an implementation strategy for the course and delivery of a refresher course. (See page 27)

Following the successful continued delivery of the Continuous Proficiency Training course in 2011-2012, a review of the MCTS ab-initio development program will commence in 2012-2013. (See page 29)

Reinvestment in the asset base

We are making substantial investments in assets related to MCTS. A number of projects are under way, most of which span over multiple years. We expect to spend $22.3 million on these projects in 2011-2012 in order to refurbish, modernize, and/or replace the following assets or their components: information and operational systems, communication systems, communication equipment, communication towers and site infrastructure related to these projects.

ICEBREAKING SERVICES

Given the harsh challenges the extremes of Canadian geography and climate bring to maritime traffic, icebreaking services are essential to ensure that shipping moves safely and efficiently through and around ice-covered waters in Eastern Canada and the Great Lakes throughout the winter, as well as during the summer navigation season in the Arctic. Icebreaking operations facilitate the informed, safe, and timely movement of maritime traffic and contribute to keeping most Canadian ports open for business year-round, thereby preventing flooding on the St. Lawrence River and supporting fishers, the marine industry, and numerous coastal communities.

What we do...

- Respond to requests for icebreaking support;
- Provide route assistance, ice-routing advice, and ice information;
- Resupply isolated Northern settlements when commercial services are not available;
- Manage flood prevention on the St. Lawrence River through the monitoring, prevention, ice booms and breaking up of ice jams;
- Break out ice in harbours and ports;
- Support Arctic sovereignty; and
- In partnership with the Canadian Ice Service, provide ice information to marine shipping to ensure the safe movement of vessels in the winter.

The Icebreaking Services program is delivered by...

- **CCG Maritime Services** staff, who define and design the icebreaking program. They manage the service by developing policies, standards, procedures, and guidelines. Through consultations and communication, they continuously plan, monitor, evaluate, and improve program performance. In addition, they provide advice, guidance, and subject-matter expertise through marine-related intergovernmental and international fora.
- **Maritime Services Regional Ice Superintendents**, who work in Ice Operations Centres, ensuring that ice information is disseminated to vessels by radio, Internet, fax, etc.; that routes around ice are prepared and distributed to mariners; and that icebreakers are strategically positioned to respond to requests for assistance. Ice Operations Centres are located in St. John's, NL; Dartmouth, NS; Quebec City, QC; and Sarnia, ON.
- **CCG Fleet**, which operates six icebreakers in the Arctic between June and November and 17 icebreaking vessels for winter operations on the East Coast of Canada, the St. Lawrence River, and the Great Lakes between December and May.
- **A partnership agreement with Environment Canada's Canadian Ice Service**, which is administered by Maritimes Services headquarters program staff to provide CCG with essential marine weather and ice information.

2010-2011 ACCOMPLISHMENTS

ICEBREAKING SERVICES

- Reviewed the maritime industry's icebreaking requirements with input from industry representatives and a document was drafted to address main concerns and shared with industry for their comments.
- Worked jointly with Canadian Ice Services on the renewal of the Ice Information Services Partnership Agreement.

- **CCG Integrated Technical Services**, which maintains ice booms and the integrated ice management system.
- **A treaty with the United States Coast Guard for joint icebreaking operations on the Great Lakes**, administered by Maritime Services headquarters and regional program staff to maximize icebreaking support capability and effectiveness for both nations.

Who we serve…

The Icebreaking program provides ice information and icebreaking services to clients on ice-covered waters of the Great Lakes, the St. Lawrence River, the East Coast of Canada, and the Arctic. The program's main clients are mariners, including the commercial shipping industry, ferries, fishing vessels, ports, river pilots, ice navigators, shipping agents, and Arctic residents. The program conducts annual pre- and post-season meetings with its clients to share program vision and direction, identify perceived gaps or existing variations in service delivery, and foster meaningful exchanges to address user needs while ensuring that expectations are realistic. This is achieved through existing media, such as the Canadian Coast Guard website, icebreaking directives, and various printed media. Clients are also informed through various fora, such as the National and Regional Canadian Marine Advisory Councils, and the Arctic Marine Advisory Board.

Looking forward…

Climate change and economic development have led to demands for extended periods of navigation through ice both in southern Canadian waters and in the Arctic. Given the need to maximize resource utilization in both ice operations and ice routing and information services, the program needs to be constantly aware of innovations in technologies and management practices that can support more efficient operations. Quality and readily available ice information is of particular importance to vessels navigating through and around ice-covered waters. Satellite imagery and enhanced marine radars, for example, can support the timely detection and recognition of dangerous ice, thereby enhancing safety and reducing navigation times. In this perspective, the program will support Research and Development (R&D) projects that could ultimately result in safer navigation, and particularly in the Arctic where marine traffic is increasing annually. In these waters, mariners do not have the appropriate technical instruments that may help discriminate between first year and more dangerous multi-year ice. One of the R&D projects (Ice Hazard project) the program is working on with external partners has a main objective to develop such an instrument, a cross-polarized radar, that would have the capacity to make this discrimination. Results obtained in lab tests suggest a very promising future for this project and several countries have already shown their interest, indicating a potential for commercialization. Field tests on icebreakers are scheduled in the coming years to validate the system. We have also been working on another research project with an aim to modelling ice pressure in order to avoid critical areas where ships could find themselves beset. As the CCG fleet is aging and becomes less reliable, this sort of information would be of primary importance to help making an optimal use of icebreakers, as well as improving ice routing.

A number of critical challenges are facing the program and its ability to deliver its advertised Levels of Service (LOS). First, the current icebreaker fleet is quite different, in both size and capability, from that which existed in 1997 when the current LOS were finalized with industry. In addition, the average age of the vessels that remain in service is quite high, and they are increasingly prone to unpredictable mechanical failures that either reduce their capability or remove them completely from icebreaking operations for substantial periods of time. Vessels' increasingly fragile mechanical state, combined with the lack of reserve capacity to backfill in the case of removal of this resource for any reason, is the most significant issue facing the program today and into the near future.

The internal review of the Icebreaking program initiated in 2009 triggered the renewal of the LOS process. Fruitful discussions conducted with marine stakeholders led to the drafting of an agreement that will now be renewed every five years. As a result of the CCG fleet situation, the program needs to invest more time in R&D projects to find new ways to provide ice information to mariners. In the coming years, the program will pay particular attention to the following projects:

- Complete the tests for the Ice Hazard Radar project and evaluate the requirements needed to implement it as an operational equipment on the ships navigating in the Arctic.
- Complete the tests for the Ice Pressure Model and gradually implement it in the regions as an operational system which would improve ice routing in critical ice-infested waters.

Commitment	Lead
2011-2012	
Amend the Icebreaking Levels of Service, as feasible and appropriate.	DG, MS

Icebreaking Services

Provides these services...	Measured this way...*	With these targets...
Icebreaking operations (e.g. icebreaking, ice escorts, etc.)	Percentage of icebreaking operations provided within CCG's Level of Service	97%
Publication of ice-related information during ice-seasons	Percentage of ice charts produced relative to LOS	100%

To achieve this result...	Measured this way...*	With these targets...
Icebreaking operations contribute to keep most Canadian ports and commercial channels open for business year round	Percentage of services provided relative to the total requests for icebreaking	100%

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Table 7 : Icebreaking Services Resource Profile, 2011-2012 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	63		**63**
Maritimes	91	2	**93**
Quebec	168	11	**179**
Central and Arctic	86	29	**115**
Pacific		8	**8**
National Capital Region	597	9,100	**9,698**
Direct Program Total	**1,005**	**9,150**	**10,155**
Fleet Operational Readiness Allocation	29,349	11,492	**40,841**
Shore-Based Asset Readiness Allocation	6,510	2,949	**9,459**
Total Service Cost	**36,864**	**23,590**	**60,455**

SEARCH AND RESCUE SERVICES

Canada is a maritime nation bounded by three oceans whose population and economy make significant use of waterways for commercial and recreational purposes. The marine environment can be dangerous and CCG is an important player in responding to emergencies that occur on water.

The federal Search and Rescue (SAR) program is a cooperative effort by federal, provincial and municipal governments. CCG's SAR program leads, delivers, and maintains preparedness for the 5.3 million square kilometre maritime component of the federal SAR system. It does so with the support of multiple stakeholders and partners, including the Canadian Coast Guard Auxiliary and National Defence. Through distress monitoring, communication, and search and rescue activities, the CCG SAR program increases the chances of rescue for people caught in dangerous on-water situations.

What we do...

- Coordinate and manage the response to marine SAR cases, rescuing approximately 3,000 people a year across Canada and supporting the protection of human life at sea;
- Assist the Department of National Defence (DND) with aeronautical and humanitarian cases;
- Operate in-shore rescue boats during the summer season; and
- Manage partnerships, which are essential for the efficient coordination of activities.

2010-2011 ACCOMPLISHMENTS

SEARCH AND RESCUE SERVICES

- Identified a way forward, in partnership with DND, for a new SAR software system.
- Worked on the completion of the updated International Aeronautical and Maritime SAR (IAMSAR) Canadian supplement (Volume IV).
- Implemented several of the approved 2010-2011 recommendations of the Search and Rescue Needs Analysis.
- Held preliminary discussions to assess workload review recommendations and options to implement appropriate measures.

The Search and Rescue program is delivered by...

- **CCG Maritime Services** staff, who define and design the SAR system. They manage service provision by developing policies, standards, procedures, and guidelines. Through consultations and communication, they continuously plan, monitor, evaluate, and improve program performance. They also provide advice, guidance, and subject-matter expertise through marine-related intergovernmental and international fora.
- **CCG SAR Mission Coordinators**, who are strategically located in three Joint Rescue Coordination Centres (JRCCs) and two Maritime Rescue Sub-Centres (MRSCs) across Canada. These coordinators provide 24/7 SAR coordination services during distress and safety incidents.
- **CCG Inshore Rescue Boat (IRB)** crews, who provide a seasonal Inshore Rescue Boat service.
- **CCG Fleet**, which operates a total of 118 vessels, all with SAR responsibilities.

- **DFO Real Property Directorate**, which is responsible for the lifecycle management of lifeboat stations.
- **A partnership with DND**, which is the lead department for the coordination of all aeronautical and marine SAR and is responsible for the three JRCCs. The JRCCs are located in Halifax, Trenton, and Victoria, and they are staffed by both DND and CCG personnel. CCG operates two MRCSs, in St. John's and Quebec City, which report to a Joint Rescue Coordination Centre.
- **A partnership with the CCG Auxiliary**, which consists of some 4,007 volunteers using 1,166 vessels that are either individually-owned boats or community vessels. The Auxiliary responds to approximately one-quarter of all marine SAR cases.

Who we serve...

The SAR program's main clients are mariners—including commercial fishers, recreational boaters, and commercial shippers—and the various associations and committees that represent them. The program generally engages with its clients to promote understanding and encourage feedback on the services CCG provides. This is achieved through existing media, such as the Canadian Coast Guard website and printed media. Clients are also informed through various fora, such as meetings of the Arctic Marine Advisory Board; the National and Local Marine Advisory Councils; the Atlantic, British Columbia, and Canadian Councils of Fisheries and Aquaculture Ministers; and the Recreational Boating Advisory Council. As a committed member of the National SAR Program, CCG also plays an active role in the Inter-departmental Committee on SAR and works with its federal partners to share views among the organizations and their individual clients and stakeholders.

Looking forward...

The SAR program has a strong relationship with its volunteer partner organization the Canadian Coast Guard Auxiliary (CCGA) and relies on its response capacity when coordinating response to maritime SAR incidents. Its current contribution agreements with the CCGA will expire on March 31, 2013. In preparation for its renewal, CCG will engage the Auxiliary in discussions on the nature of the partnership, CCGA service delivery and how emerging challenges, such as training costs and recruitment can be addressed.

The program will continue to identify opportunities to improve its information and knowledge management, particularly its tools for statistical analysis of the program's effectiveness. While some progress was made in 2010-2011 during discussions on shared system requirements with our National Defence partner, a more detailed review will be necessary to identify future needs. Quality evaluations are a good tool to measure the success of an entire program's operations. To this end, Central and Arctic Region will pilot the introduction of a SAR quality assurance approach during 2011-2012 which will: document the Commanding Officer and crew interaction as a team; assess overall training and equipment needs; and generate self-awareness with the intent that it will lead to overall SAR professionalism and performance on a SAR mission.

In order to support SAR service delivery in the North, in 2011-2012 the program will be working with its partners in the Canadian Forces to identify opportunities to enhance their support and capabilities for maritime SAR in some Arctic communities in cooperation with the CCGA. Preliminary discussions are now underway and more detailed discussions will continue to select appropriate units for increased training to support maritime SAR.

In addition to exploring new options to cooperate with SAR partners in the North, including the CCGA, the CCG SAR program will also begin implementing the new Agreement on Cooperation on Aeronautical and Maritime Search and Rescue once signed. CCG, in cooperation with its federal and international partners, will begin establishing operational procedures and guidelines to facilitate joint SAR operations and operational reviews. As a demonstration of commitment to the implementation of the agreement, CCG will support the Canadian Forces in hosting a maritime SAR tabletop exercise focused on the Arctic in cooperation with several other Arctic states, in fall 2011.

Commitment	Lead
2011-2012	
Start the renewal process for the CCGA Contribution Agreements.	DG, MS
Complete the work, with our National Defence partner, on software system requirements.	DG, MS
Explore and develop options for SAR service delivery in the North.	DG, MS
Pilot the introduction of a SAR quality assurance approach.	AC, C&A

Search and Rescue Services

To achieve this result...	Measured this way...*	With these targets...
People at risk of loss of life or injury have access to assistance in the maritime environment	Percentage of lives saved relative to total reported lives at risk in the maritime environment	≥90%
Canadian Coast Guard Auxiliary (CCGA) response is cost effective for the Canadian Coast Guard	Percentage of maritime SAR taskings accepted by CCGA relative to the total number of CCGA taskings	75%

Search and Rescue Services – Search and Rescue Coordination and Response

Provides these services...	Measured this way...*	With these targets...
SAR coordination and response services	Percentage of primary SAR vessels meeting reaction time of 30 minutes or less for maritime incidents	99%

To achieve this result...	Measured this way...*	With these targets...
Search and rescue response is coordinated and appropriate	Percentage of maritime SAR alerts received investigated according to operational procedures (SAR operational procedures incorporate Transport Safety Board recommendations, as relevant)	100%

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Canadian Coast Guard Auxiliary

The Canadian Coast Guard Auxiliary (CCGA) is organized into six federally incorporated, not-for-profit volunteer organizations that parallel the five CCG regions, and one national corporation. The Minister of Fisheries and Oceans maintains a formal Contribution Agreement with each of the six CCGA corporations for related costs. The corporations are separate legal entities from the Government of Canada and work in close partnership with CCG.

Canadian mariners have a strong tradition of responding to distress calls from vessels in trouble. Canada's vast and often inhospitable coastline, combined with unpredictable weather, has ensured that these situations are far from uncommon. It is not possible for the Canadian Coast Guard to cover the entire coastline, and for many decades CCG has relied on the Canadian Coast Guard Auxiliary to supplement its response efforts. The CCGA is an integral part of the National SAR program.

MEMBERSHIP...

The majority of CCGA members are commercial fishers and pleasure boaters who donate their time and vessels to assist the Canadian Coast Guard in delivering Search and Rescue Services. The remaining CCGA members are volunteers from local communities who crew community-based dedicated response vessels 24 hours a day, seven days a week.

The successful delivery of Auxiliary services depends on having competent and experienced people to discharge the various responsibilities of the Auxiliary. Training is the backbone of this organization. The Canadian Coast Guard assists the Auxiliary with the specialized SAR training necessary to become and remain a member.

Every year, CCGA responds to approximately 21% of all maritime SAR incidents in Canada and is credited with saving approximately 1,000 lives each year. CCGA has approximately 4,007 members and access to approximately 1,166 vessels. Members' local knowledge, maritime experience, seafaring talents and professional conduct make them one of Canada's greatest maritime assets.

Search and Rescue Services – CCG Auxiliary

Provides these services...	Measured this way...*	With these targets...
Current and valid Contribution Agreement	Percentage of Auxiliary organizations reporting against terms and conditions of Contribution Agreement	100%

To achieve this result...	Measured this way...*	With these targets...
Mariners benefit from CCGA's response to SAR taskings	Percentage of maritime SAR incidents in which CCGA participated	20%
Canadian Coast Guard Auxiliary (CCGA) capacity to respond to SAR taskings is maintained	Percentage change in number of CCGA members	<-8%
	Percentage change in number of CCGA vessels	<-8%

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Table 8 : Search and Rescue Services Resource Profile, 2011-2012 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	1,939	994	**2,933**
Maritimes	2,838	473	**3,311**
Quebec	1,679	343	**2,021**
Central and Arctic	1,880	650	**2,530**
Pacific	1,803	414	**2,217**
National Capital Region	1,919	1,173	**3,092**
Direct Program Total	**12,059**	**4,047**	**16,106**
Fleet Operational Readiness Allocation	64,224	25,147	**89,372**
Shore-Based Asset Readiness Allocation	11,397	5,162	**16,560**
Total Service Cost	**87,680**	**34,357**	**122,037**

Key initiatives

Search and Rescue Needs Analysis

A needs analysis of the Search and Rescue (SAR) program was conducted in 2007. The goals of the analysis, which included consultations and preparation of a report on CCG's findings, were to assess the SAR resources needed to respond to incidents in the maritime areas for which Canada has accepted responsibility and to validate the existing Levels of Service or propose changes.

Search and Rescue services are delivered to different service standards across Canada. The SAR needs analysis reviewed, updated, and assessed all factors (e.g., traffic, meteorological, and incident trends) affecting the existing Levels of Service. The SAR program continues to implement the previously approved recommendations of the 2007 SAR needs analysis and will continue to do so as resources permit in 2011-2012. At the same time, the program is examining how to improve its methodology for conducting the analysis by enhancing the involvement of its partners in the study. The SAR program will also improve its approach to assessing SAR resource needs by developing a risk management framework to examine maritime SAR system resources, including CCG Auxiliary, Department of National Defence, vessels of opportunity and local response resources. The capacity of all responders will be evaluated using the framework along with other factors such as volume of traffic, incident types and geophysical conditions.

Commitment	In response to...	Lead
2011-2012		
Develop a new SAR needs analysis methodology that includes a risk management framework.	AG A-Base	DG, MS
2012-2013		
Continue SAR needs analysis on a cyclical, ongoing basis.	AG A-Base	DG, MS

Search and Rescue Capability

We continue to strive to address the most pressing operational human resource requirements to ensure the continuity of our services and to respond to the needs of our employees. In this regard, we undertook an independent workload review for SAR Mission Coordinators to identify human resource requirements within the five Rescue Centres and the results were a number of recommendations from an external point of view.

During 2010-2011 the recommendations and options were reviewed and the best approach for implementing the approved recommendations was established. The preferred option will be put in place in 2011-2012 and the program will review the success of its implementation the following year.

Commitment	Lead
2011-2012	
Implement appropriate measures to address issues identified in the workload analysis.	DG, MS

ENVIRONMENTAL RESPONSE SERVICES

The Canadian Coast Guard is the lead federal agency to ensure an appropriate response to ship-source and mystery-source spills in Canada's marine environment. Given the amounts of oil and other hazardous materials that are shipped via the marine transportation system, it is critical that the Canadian Coast Guard is ready to respond to marine pollution incidents in Canadian waters to protect coastal communities and Canada's interests. The objectives of the Environmental Response program are to minimize the environmental, socio-economic, and public safety impacts of marine pollution incidents.

An effective response to marine pollution events requires a high level of preparedness, including appropriate resources, strong partnerships, thoughtful contingency planning, and skilled personnel. The marine pollution response capacity within the Coast Guard is a unique federal capacity not found in other federal departments. Therefore, the Coast Guard may use this unique capacity to support the response mandates of other federal partners such as spills from other sources (e.g. land based spills or offshore platforms) and emergency response events (e.g. Manitoba Floods). In addition, the CCG has mutual aid agreements with other nations, such as the United States Coast Guard and Denmark, which can be utilized in a large scale marine pollution response.

What we do...

- Respond to an average of 1,300 reported marine pollution events per year.
- Ensure the federal government has an appropriate and nationally consistent level of preparedness and response to ship sourced spills in Canadian waters;
- Monitor and investigate all reported marine pollution incidents in Canada and ensure an appropriate response:
  - Where the polluter has been identified and is willing and able to respond, the Coast Guard advises the polluter of its responsibilities and, once satisfied with the polluter's intentions/plans, monitors the polluter's response and provides advice and guidance as required.
  - In cases where the polluter is unknown, unwilling, or unable to respond, the program assumes the overall management of the incident.
- Promote a "whole of government" approach to preparing for and responding to marine pollution events in Canadian waters through the Interdepartmental Committee on Marine Pollution and by liaising with the program's regulatory and policy leads and operational partners, including Transport Canada, Environment Canada and Public Safety Canada.
- Ensure Environmental Response program personnel are trained and exercised to function under a nationally consistent emergency management system that deploys assets and resources appropriately and is capable of rapid and systemic escalation of responses in all regions of Canada.

2010-2011 ACCOMPLISHMENTS

ENVIRONMENTAL RESPONSE SERVICES

- Completed the distribution of ER equipment packages in the Arctic under the Health of the Oceans (HoTo) Initiative.
- Contracted a marine engineering salvage company to assess the integrity of the vessel *Brigadier General M. G. Zalinski*

The Environmental Response program is delivered by…

- **CCG Maritime Services** staff, who define and design the overall Environmental Response program. They manage the program by developing policies, standards, procedures, and guidelines to promote the delivery of a nationally consistent service. Through consultations and communication, they continuously plan, monitor, evaluate, and improve program performance. They also provide advice, guidance and subject-matter expertise through marine-related intergovernmental and international fora. For example, the Coast Guard is Canada's Competent Authority for marine pollution at the International Maritime Organization.
- **CCG Environmental Response** personnel, who have extensive expertise identifying, analyzing, developing, and executing the preparedness and response activities essential to minimizing the environmental impacts of marine pollution events.
- **CCG Fleet**, which operates CCG's vessels in support of Environmental Response operations.
- Other **DFO sectors**, including Ecosystems and Fisheries Management, and Oceans and Science, which provide essential scientific information and advice critical for the CCG to ensure an appropriate response to a spill.
- **Environment Canada (EC), Transport Canada (TC)** and **Public Safety Canada,** EC provides environmental and scientific advice during a response to a marine pollution incident and provides advice in the development and maintenance of contingency plans. In addition, EC ensures regulatory enforcement and compliance under the *Fisheries Act* and other statutes. TC provides the regulatory framework for *Canada's Marine Oil Spill Preparedness and Response Regime*, provides technical advice with respect to vessels, and ensures enforcement and compliance with various regulations. Public Safety Canada is responsible for setting the national framework for emergency preparedness in Canada, through the Federal Emergency Response Plan and the Marine Events Response Protocol. CCG works with Public Safety Canada to ensure interoperability and overall preparedness of Canada to respond to marine pollution events.
- **Response organizations**, which may assist polluters in their response; CCG monitors this response.
- **Foreign governments**, through bilateral agreements, Memoranda of Understanding, and contingency plans that ensure all available resources can be used to mitigate the effects of pollution.

Who we serve…

Given its role of ensuring an appropriate response to ship-source and mystery-source pollution spills in Canadian waters, the primary client for the program is the Canadian public in general, followed by the shipping industry, Transport Canada, Environment Canada, and other federal and provincial government departments and agencies that have environmental or emergency jurisdiction. The program generally engages with its clients to inform them of their roles and responsibilities and to promote understanding, as well as to encourage feedback on the services provided. The program also consults its clients on its service levels. This is achieved through various media, such as the CCG website and printed media; as well as through various fora, such as the Interdepartmental Marine Pollution Committee, National and Regional Canadian Marine Advisory Councils, Regional Advisory Councils and the National Advisory Council associated with *Canada's Marine Oil Spill Preparedness and Response Regime*; and various workshops, conferences, and exercises at Regional, National and International levels.

Looking forward...

Renewing the program's focus on preparedness and planning and working more closely with its federal partners to promote a whole of government approach to marine pollution will be key priorities for CCG in the coming years, as previously mentioned under the "Environmental Response" priority in Section 3 (page 22). These include, for 2011-2012, developing and beginning implementation of an Integrated Management Action Plan to address the recommendations of the recent internal and Commissioner of the Environment and Sustainable Development (CESD) audits, which will strengthen CCG's Environmental Response capacity, as well as developing and initiating a process to report back to the CESD on progress being made against their audit recommendations as we move into 2012-2013 and beyond. In addition, in response to a recommendation from the CESD Audit, the Environmental Response program will review its incident management system (Response Management System) to ensure it is capable of supporting a multi-party response to a major oil spill in Canadian waters. In order to undertake these activities CCG will need to focus on strengthening its cost recovery practices for environmental response activities and maximizing the adminstrative cost recovery flexibilities provided to CCG under the *Marine Liabilities Act* and its Special Operating Agency status.

Beyond these important initiatives aimed at strengthening the ER program, and in order to ensure CCG ER personnel are appropriately trained on a nationally consistent basis to respond to the marine pollution incidents within its legal mandate, a national approach to environmental response training will be established. This will include the development of a national training plan based on competency profiles for Environmental Response personnel and key positions within the incident management system.

Being prepared to respond to ship-source spills necessitates that the ER program maintain appropriate equipment and trained personnel. In 2010-2011, work continued to differentiate the ER equipment systems such as unsheltered, on-shore, etc. This systems approach is being used to assess the appropriateness of CCG's current asset base and to identify future reinvestment requirements. In 2011-2012, the ER program, in coordination with Coast Guard's Integrated Technical Services, will begin the development of a National Equipment Strategy that will include a life cycle and materiel management approach which responds to a CESD Audit recommendation.

Following the distribution of the ER equipment packages to Arctic communities, funded through the Health of the Oceans initiative in Budget 2007, CCG will develop training plans for those Arctic communities that received the packages to enable them to safely and effectively utilize the equipment in the event of a marine pollution incident.

Commitment	Lead
2011-2012	
Develop a National Equipment Strategy which will include a life cycle and materiel management approach.	DG, MS
Establish a national approach to environmental response training which will include a national training plan.	DG, MS
Develop training plans for Arctic communities to utilize the environmental response equipment packages they have received.	AC, C&A

Environmental Response Services

Provides these services...	Measured this way...*	With these targets...
Respond to reported cases of ship-source marine pollution	Percentage of marine pollution responses with trained personnel, strategically placed equipment, and a mobilization plan	80%
Appropriate response to ship-source marine pollution threats	Percentage of response action that meets incident response plan objectives	100%

To achieve this result...	Measured this way...*	With these targets...
Environmental, economic, and public safety impacts of marine pollution incidents are mitigated	Percentage of reported cases in which the response was appropriate relative to the pollutant, threat and impact	100%

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Table 9 : Environmental Response Services Resource Profile, 2011-2012 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	1,020	394	**1,414**
Maritimes	1,059	272	**1,332**
Quebec	831	533	**1,364**
Central and Arctic	1,326	612	**1,938**
Pacific	1,001	349	**1,350**
National Capital Region	1,257	789	**2,045**
Direct Program Total	**6,495**	**2,949**	**9,443**
Fleet Operational Readiness Allocation	627	245	**873**
Shore-Based Asset Readiness Allocation	475	215	**690**
Total Service Cost	**7,597**	**3,409**	**11,006**

Key initiative

Brigadier General M. G. Zalinski

CCG is playing a key role in addressing an oil-pollution threat posed by the wreck of the United States Army transport vessel *Brigadier General M. G. Zalinski*. This vessel sank in the Grenville Channel in British Columbia in September 1946, entombing a cargo of munitions and an estimated 700 tonnes of fuel. The wreck, which lay largely forgotten, began leaking fuel in 2003.

Following an assessment of the situation, CCG developed an action plan and costed all of its components. During 2010-2011, a marine engineering salvage company was contracted to assess the integrity and condition of the vessel, with the goal of determining the extent and type of work that can be conducted to mitigate the threat of pollution.

Commitment	Lead
2011-2012	
Review and analyze the results of the integrity assessment in order to determine the potential next steps.	AC, Pacific

Reinvestment in the asset base

Environmental Response Services will be developing project approval documentation in 2011-2012 to obtain approval to initiate a $50.6 million, multi-year project starting in 2012-2013 to refurbish and modernize existing environmental response equipment by returning the assets to baseline condition.

MARITIME SECURITY

Canadians and foreign trading partners expect Canada to have a secure maritime transportation system. To this end, CCG leverages its capabilities, including extensive vessel identification and tracking systems, on-water capabilities and maritime expertise, to make a significant contribution to national and maritime security.

With a clear accountability to deliver activities and information systems that are critical to Canada's maritime security, CCG will continue to enhance its security contribution to the federal enforcement and intelligence communities. With the Long Range Identification and Tracking system and the Automatic Identification System (new vessel tracking systems) implemented, CCG will continue to focus on ensuring the reliability of these systems and ensure the consistent and dependable flow of information to our partners.

2010-2011 ACCOMPLISHMENTS

MARITIME SECURITY

- Finalized the document CCG's Contribution to Maritime Security.
- Completed the Automated Identification System (AIS) project as per the initial project plan and ensured operational capability of the system.
- Implemented the Long Range Identification and Tracking System nationwide.

The past five years have seen the establishment of dedicated CCG resources in ongoing maritime security and national security programs. The joint RCMP/CCG Marine Security Enforcement Teams in the Great Lakes and St. Lawrence Seaway area and a permanent DFO presence in the multi-agency Marine Security Operations Centres represent an evolution for CCG investments in maritime security – from simply enhancing CCG safety-based activities (which provide a subsequent maritime security benefit for partners) to making direct investments in on-going inter-agency maritime security activities.

What we do...

In support of national security, Coast Guard:

- Supports on-water enforcement and responsiveness by providing well-equipped crews and vessels both on a program basis (as in the case of the joint RCMP / CCG Marine Security Enforcement Teams) and on a contingency event basis (as in the case of the 2010 Olympic and Paralympic Winter Games).

- Provides valuable vessel identification and tracking information to other federal departments to enhance Canada's awareness of activities in its maritime domain. The recently launched Long Range Identification and Tracking (LRIT) System and the Automatic Identification System (AIS) are deemed by our partners to be critical to the enhancement of Canada's maritime domain awareness.
- Provides crucial analyses of the movements of foreign and domestic vessels as a core partner in the two coastal interagency Marine Security Operations Centres (MSOCs), led by the Canadian Forces, and the interagency Great Lakes – St. Lawrence Seaway MSOC, led by the RCMP.
- Offers, as a key member of the maritime security community, operational and strategic support to its partners through various interdepartmental fora, such as the Interdepartmental Marine Security Working Group, led by Transport Canada.
- Established the Maritime Security Branch which provides leadership and management of the national and maritime security file within DFO. The Branch works with internal partners – including CCG Headquarters and Regional Fleet, Maritime Services and Integrated Technical Services colleagues, as well as with DFO's Conservation and Protection, Canadian Hydrographic Service and Science representatives – to assess DFO's ability to enhance its contribution to national security.

Looking forward...

The Canadian Coast Guard will continue to position itself as a value-added solution provider, working with the federal enforcement and intelligence communities in the pursuit of enhanced national maritime security. In the ongoing climate of federal budgetary restraint, it is envisioned that partners will be seeking additional support from the Coast Guard in meeting their national security objectives. We will continue to assess how the organization can build on its considerable experience in maritime safety in order to proactively support its partners and further enhance national security.

It is clear, for example, that Arctic security and sovereignty are emerging federal priorities. The Canadian Coast Guard, as the main federal operational presence in the Arctic, can offer solutions to its federal partners to address security gaps in these waters. To this end, the Coast Guard is already working with partners to explore means by which its role could be enhanced in enforcing Canadian laws and protecting national security. In addition, CCG is already working with its partners to establish AIS coverage in key Arctic passages. As well, it is ensuring that the LRIT system is fully utilized to track vessels approaching or travelling within our Arctic waters.

Internationally, the Coast Guard will continue its vigorous and important work in support of global maritime security objectives. It will continue to have a strong voice on security within such influential bodies as the International Maritime Organization and the International Association of Marine Aids to Navigation and Lighthouse Authorities, and it will share its expertise with these organizations. As a leading proponent of LRIT, the Coast Guard will continue to work to promote the adoption and utilization of this critical vessel tracking system by all maritime nations, thereby enhancing maritime security globally.

Maritime Security

Provides these services...	Measured this way...*	With these targets...
Vessel traffic information	Percentage availability of the Long Range Identification and Tracking (LRIT) system and the Automatic Identification System (AIS)	99.7% by March 31, 2012

To achieve this result...	Measured this way...*	With these targets...
Federal enforcement and intelligence communities have adequate support and information to enhance their awareness of vessel movements and respond to on-water incidents	Percentage availability of the DFO consolidated maritime picture versus advertised level of availability for clients	TBD

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Table 10 : Maritimes Security Resource Profile, 2011-2012 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador			
Maritimes			
Quebec	1,157	491	**1,648**
Central and Arctic		307	**307**
Pacific		10	**10**
National Capital Region	3,665	1,915	**5,581**
Direct Program Total	**4,823**	**2,723**	**7,545**
Fleet Operational Readiness Allocation	10,866	4,255	**15,121**
Shore-Based Asset Readiness Allocation	1,793	812	**2,605**
Total Service Cost	**17,482**	**7,789**	**25,271**

Key initiatives

Marine Security Enforcement Team

A key aspect of our increased role in supporting the federal maritime security agenda is the ongoing development of the joint RCMP/CCG Marine Security Enforcement Team (MSET) program in the St. Lawrence – Great Lakes region. The program characterizes Canada's multi-agency approach to maritime security by leveraging existing departmental capabilities to collectively and efficiently achieve a national security objective.

There are four interim MSET vessels that will be replaced over the next two years with the commissioning of four new Mid-Shore Patrol Vessels (MSPV), the first of which is scheduled for delivery in 2012. The new MPSVs will provide the joint CCG/RCMP MSET program with a more robust on-water capability when compared to the interim vessels presently used.

Additionally, the CCG and RCMP have created an MSET steering committee to ensure that the MSET program is delivered in an effective and efficient manner and assures that the program meets the requirements placed upon it by the Government of Canada.

Law Enforcement Familiarization Training is provided to all crew members and specific equipment has been installed aboard vessels tasked to assist in law enforcement operations. We will also continue to work with RCMP and DFO Conservation and Protection personnel to identify the hazards inherent in on-water enforcement operations. This will allow us to review and adjust our procedures and practices to ensure the greatest safety possible for CCG personnel and partner agencies.

Marine Security Operations Centres

DFO and CCG proactively participate in the multi-departmental Marine Security Operations Centres (MSOC) initiatives, with the Canadian Forces leading this initiative on the coasts and the RCMP providing the leadership in the St. Lawrence Seaway – Great Lakes area. DFO contributes significant data on maritime traffic, including associated on-water activities and analyzes this data to support the enhancement of maritime domain awareness on Canada's three coasts and in the St. Lawrence Seaway – Great Lakes area.

In 2010-2011, CCG enhanced this contribution through the full implementation of the Long Range Identification and Tracking (LRIT) System within the MSOCs. LRIT allows MSOC partners to track vessels as follows: Canadian flag vessels – anywhere in the world; foreign vessels entering Canadian ports – anywhere up to 2,000 nautical miles from Canadian waters; and foreign vessels transiting through our coastal waters – anywhere up to 1,000 nautical miles from Canada's shores, including the Arctic.

This past year has also seen the staffing of Coast Guard positions in both the Coastal and Great Lakes – St. Lawrence Seaway MSOCs culminating in a 24/7 Coast Guard capacity within the three MSOCs. With personnel now in place, DFO and CCG must work over the next few years on establishing rigorous and comprehensive procedures and protocols as we interact with our partner agencies and departments. In parallel, CCG will also develop and implement the operational tool sets required to support staff as they conduct their functions and duties.

Accordingly, in 2011-2012, CCG will develop a National Standard Operating Procedures (SOP) manual in consultation with its partners and stakeholders. Once completed, CCG will ascertain requirements for Memoranda of Understanding or Service Level Agreements with its partners and stakeholders to support its SOPs. In 2011-2012, CCG will also finalize a Statement of Operational Requirements for software support tools for both the CCG and DFO components of the MSOCs. Once endorsed as appropriate and achievable, CCG will initiate the process of implementing the essential tool sets as resources allow and as it fits within a larger information strategy construct.

Commitment	Lead
2011-2012	
Develop a draft National Standard Operating Procedures Manual.	DC, Operations
Finalize the Statement of Operational Requirements for software support tools.	DC, Operations
2012-2013	
Finalize the National Standard Operating Procedures Manual and implement any associated MOUs or SLAs as required with partners.	DC, Operations
Implement essential tool sets to support DFO/CCG MSOC activities.	DC, Operations

Automatic Identification System (AIS)

AIS is a vessel tracking system that automatically provides updates on vessel positions and other relevant ship voyage data to a marine traffic operators. The purpose of AIS is to enhance Coast Guard's ability to identify and monitor maritime traffic in near real-time with accurate and detailed information, allowing for an enhanced awareness of vessels approaching and operating in Canadian waters. In addition to the safety benefits of collisions avoidance and being aware of vessel traffic, there is also a collateral benefit of providing an expansion of vessel traffic data to the maritime security enforcement and intelligence communities.

AIS shore infrastructure has been integrated within Marine Communication and Traffic Services (MCTS) Centres resulting in 19 MCTS Centres and over 113 remote sites being fitted with AIS systems. In addition to managing shipping traffic in general, MCTS will provide an AIS data feed to other government departments such as the Canadian Forces, as well as to the MSOCs on both coasts and in the Great Lakes.

To further improve both maritime safety and security, CCG is currently examining the potential for establishing two terrestrial AIS test sites in the Arctic.

Commitment	Lead
2011-2012	
Examine the potential for two terrestrial AIS test sites in the Arctic.	DG, ITS
2012-2013	
If successful, implement these Arctic AIS sites.	DG, ITS

Long Range Identification and Tracking System (LRIT)

LRIT is an integral part of the International Maritime Organization's efforts to further enhance maritime security. Using satellite technology, LRIT allows for the tracking of SOLAS (International Convention for the Safety of Life of Sea) class vessels entering or transiting Canadian waters and of Canadian SOLAS class vessels operating internationally. Canada, through CCG, continues to lead the implementation of the international LRIT system and is working with national and international partners to ensure the long-term sustainability of this important vessel tracking system.

In addition, CCG provides financial assistance to a number of developing countries to assist in the establishment of their respective LRIT Data Centres. As the international lead for LRIT at IMO, Canada has been asked by the International Maritime Organization (IMO), as well as directly by countries of the developing world, to assist them technically and financially to meet Long Range Identification and Tracking obligations. Providing this assistance to the developing world results in vessel data from those countries being available to port and coastal states, thus improving global maritime domain awareness.

With LRIT, Canada is able to identify and track approximately 800 additional ships a day. This data will significantly enhance Canada's maritime domain awareness and is shared with partners in the Canadian security, enforcement, and intelligence communities. LRIT is also being used by CCG to successfully track foreign flag vessels engaged in Arctic voyages, with Canada's area of entitlement for data extending over the North Pole.

Furthermore, CCG is examining other purposes for this tool with a variety of partners within DFO for environmental purposes. These could include risk analysis for ship-based oil spills and shipping density analysis around Canada's marine protected areas. LRIT will also benefit search and rescue by identifying vessels of opportunity in the area of a vessel in distress.

Reinvestment in the asset base

We are investing in critical surveillance and tracking systems in support of enhanced maritime security. We expect to spend $6.2 million on AIS in 2011-2012; the last year of this $25 million project.

FLEET OPERATIONAL READINESS

The Canadian Coast Guard Fleet Operational Readiness (FOR) Program provides safe, reliable, available, and operationally capable vessels, air cushion vehicles, helicopters, and small craft with competent and professional crews ready to respond to on-water and maritime related requirements. The FOR program includes three program sub-activities: Fleet Operational Capability; Fleet Maintenance and Fleet Procurement. Through the Fleet Operational Readiness program, the CCG ensures that Canada's civilian fleet meets the current and emerging needs and priorities of Canadians and the Government of Canada.

In addition to supporting most Coast Guard programs, as well as the Science and Fisheries Enforcement programs of DFO, the CCG fleet delivers civilian marine services on behalf of other federal government departments or in support of the maritime priorities of other federal agencies and organizations. Such clients include the Department of National Defence, Environment Canada, the Royal Canadian Mounted Police, the Department of Foreign Affairs and International Trade Canada, Transport Canada, Natural Resources Canada, and the Natural Sciences and Engineering Research Council of Canada. Detailed performance information is published annually in the CCG Fleet Annual Report.

2010-2011 ACCOMPLISHMENTS

FLEET OPERATIONAL READINESS

- Completed and published both the CCG Policy on Assistance to Disabled Vessels and the Towing Procedures amendments to the Fleet Safety and Security Manuals.
- Provided significant on-water assets in support of national and international security requirements for the 2010 G8 / G20 Summits in southern Ontario.
- Developed mutually beneficial relationships with DFO – Occupational Health and Safety and CCG Integrated Technical Services – Health, Safety and Environmental Compliance to ensure a seamless department wide Health, Safety, Security, and Compliance System.
- Participated in the accelerated collective bargaining process with Treasury Board and the Public Service Alliance of Canada resulting in a new collective agreement for Ships' Crew.
- Developed a Service Level Agreement pilot between Fleet and Maritime Services.

What we do…

Procure and maintain Canada's civilian fleet of vessels in order to ensure CCG's fleet is in a ready-state to deliver programs and provide operationally capable ships, helicopters and personnel for about 32,000 operational days per year to:

- Deliver on-water CCG services related to search and rescue, maritime security, environmental response, icebreaking, flood control, aids to navigation and waterways management;

- Respond to federal maritime priorities and natural or man-made emergencies as a key player in various activities mandated under the Federal Emergency Response Plan;
- Support DFO science activities and the conservation and protection of fishery resources; and
- Support any on-water, non-military needs of other government departments (OGDs).

The Fleet Operational Readiness program is delivered by…

Fleet Directorate responsible for

- Managing the operations of 118 vessels, 22 helicopters and approximately 2,400 **Ships' Crew and Ships' Officers** working within a safety and security management system;
- Round-the-clock operations in five regions, each with a **Regional Operations Centre (ROC)** that coordinates the tasking and deploying of vessels according to the Fleet Operations Plan;
- Determining requirements of the fleet based on close consultation with clients; and
- Managing the **National Coordination Centre (NCC)**, at Headquarters in Ottawa, which provides centralized coordination as needed.

Experts in vessel procurement and maintenance who ensure that the Canadian Coast Guard has the necessary on-water operational capacity now and in the future…

- Maintenance – **Integrated Technical Services (ITS)** responsible for the maintenance of CCG vessels and their compliance to marine transportation regulations to ensure their availability and reliability.
- Procurement – **Vessel Procurement and ITS** plan, manage, verify, and accept the design and construction of new large and small vessels (Vessel Procurement responsible for large and ITS for small), air cushion vehicles, helicopters, and small craft (ITS) consistent with CCG's operational requirements as identified in the Fleet Renewal Plan and the Integrated Investment Plan.

Who we serve…

In general, Fleet Operational Readiness ensures that the required vessels, helicopters and maritime professionals are provided to meet the evolving needs of the Government of Canada. In particular, Fleet Operational Readiness provides essential platforms for the delivery of:

- **CCG Programs** – Search and Rescue, Maritime Security, Environmental Response, Icebreaking, Aids to Navigation, Waterways Management, and Marine Communications and Traffic Services;

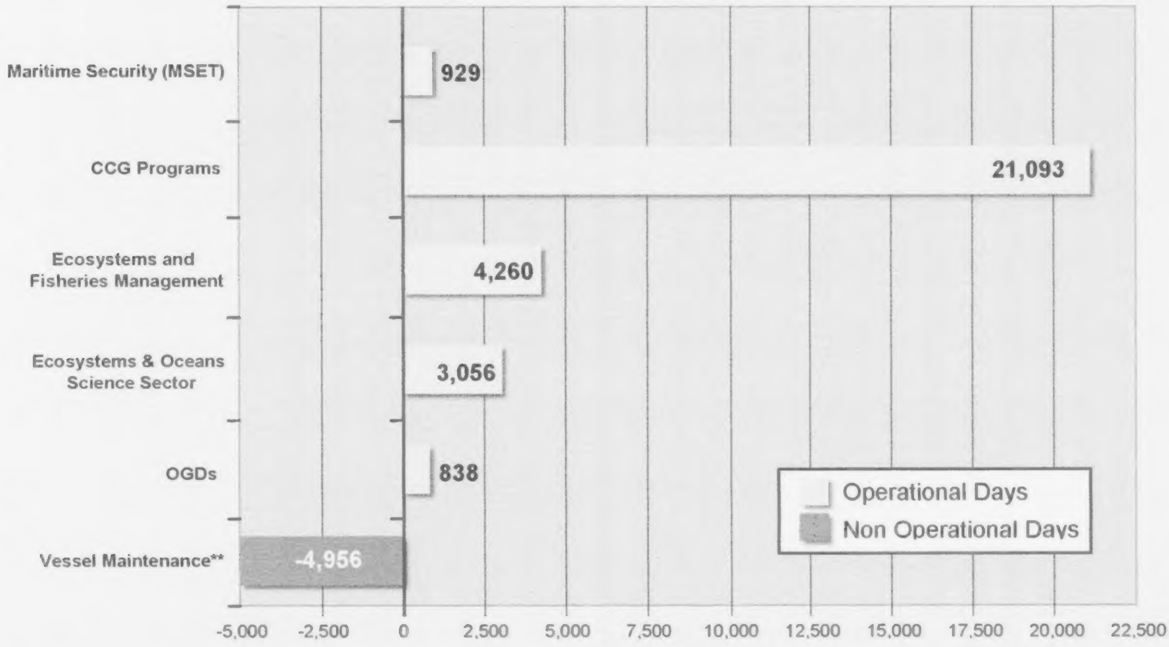
In addition to delivering its own services to Canadians, CCG plans to support the programs of its clients as follows:

- **DFO Ecosystems and Oceans Science Sector (EOSS)** – Requirements for the 2011-2012 at-Sea Science Program include 3,056 operational days of vessel time and over 342 hours of helicopter time to EOSS. While science-related activities are conducted on many of our multi-tasked vessels, 16 vessels in the fleet are dedicated to the scientific endeavours of the DFO at-Sea Science Program.
- **DFO Ecosystems and Fisheries Management (EFM) – Conservation and Protection (C&P) –** Requirements for the 2011-2012 C&P program

include 4,260 operational days of vessel time and over 273 hours of helicopter time. EFM–C&P activities supported by the Coast Guard include Northwest Atlantic Fisheries Organization (NAFO) patrols, support to the annual seal harvest, and fisheries enforcement.

- **Other Government Departments (OGDs)** – Requirements to support the on-water needs of OGDs for 2011-2012 include 838 operational days of vessel time and over 635 hours of helicopter time to government clients. These include Environment Canada, Natural Resources Canada, the Natural Sciences and Engineering Research Council of Canada for additional science-related activities, the Department of National Defence and the Royal Canadian Mounted Police. A distinction has been made between at-Sea Science and external Science clients, such as National Centre for Arctic Aquatic Research Excellence, that have now been included under this category of OGDs. In previous years all science-related missions were included with at-Sea Science.

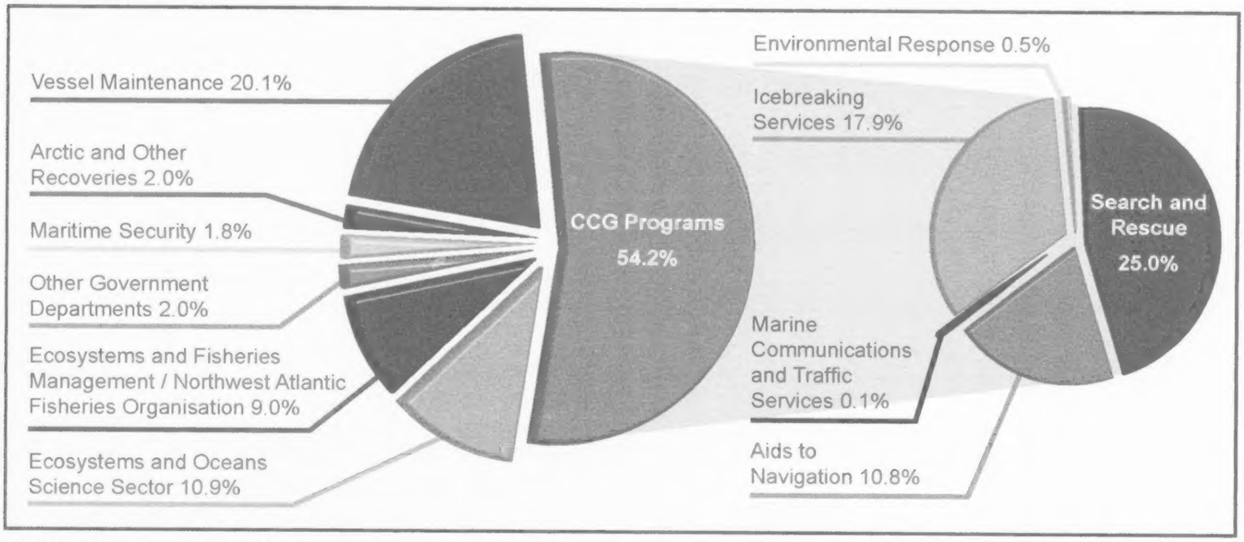
Figure 3: Planned Service by Program 2011-2012
(in operational days* and scheduled maintenance days)**



** All or part of a pre-determined 24 hour period (a day) where the vessel is available to deliver service to a client – excluding scheduled maintenance, refit or lay-up.*

*** The number of operational days unavailable to clients due to Fleet maintenance requirements (vessel life extensions, refits, and scheduled maintenance)*

Figure 4: Distribution of Planned Vessel Costs by Client 2011-2012*



**Illustrated as a percentage of total cost*

Looking forward...

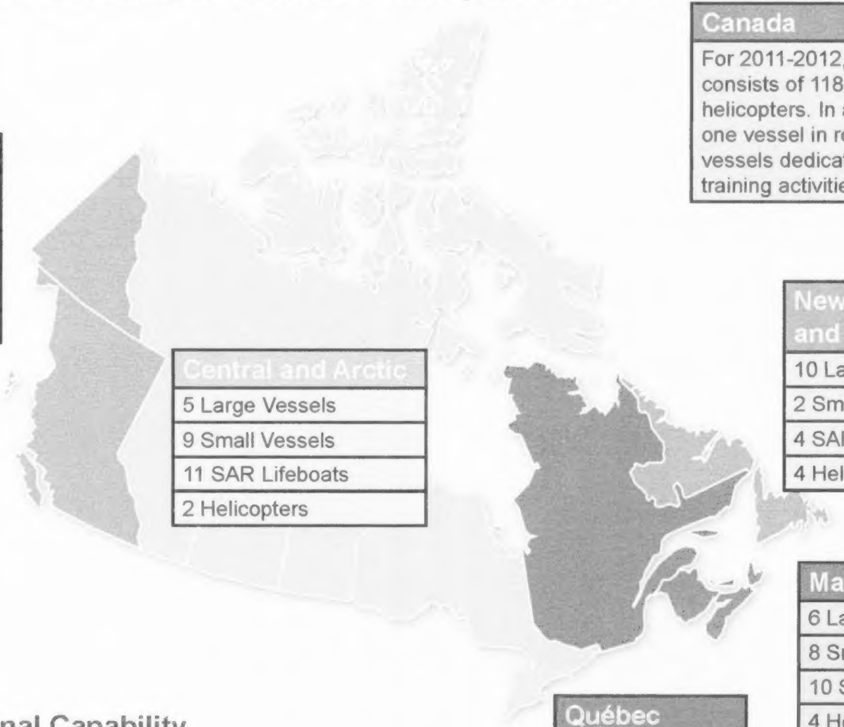
One of the Coast Guard's key priorities will be the renewal of its assets. This will include continuing our efforts for the procurement of new and replacement vessels, improving asset maintenance, advancing the CCG Fleet Renewal Plan and supporting the implementation of the National Shipbuilding Procurement Strategy. For details please refer to the Asset Renewal priority on page 12.

Coast Guard Fleet Operational Readiness

To achieve this result...	Measured this way...*	With these targets...
A fleet of modern vessels which meet the operational needs and requirements of the Government of Canada	The percentage of operational life remaining of the fleet of large vessels and the percentage of operational life remaining of the fleet of small vessels (excludes helicopters and small craft)	Between 40% and 60% for large and small vessels

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Figure 5 : National Distribution of Vessels and Helicopters 2011-2012



Canada

For 2011-2012, the CCG Fleet consists of 118 vessels and 22 helicopters. In addition, CCG has one vessel in reserve and two vessels dedicated to on-water training activities.

Pacific
7 Large Vessels
9 Small Vessels
2 ACVs
13 SAR Lifeboats
6 Helicopters

Central and Arctic
5 Large Vessels
9 Small Vessels
11 SAR Lifeboats
2 Helicopters

Newfoundland and Labrador
10 Large Vessels
2 Small Vessels
4 SAR Lifeboats
4 Helicopters

Maritimes
6 Large Vessels
8 Small Vessels
10 SAR Lifeboats
4 Helicopters

Québec
8 Large Vessels
5 Small Vessels
2 ACVs
7 SAR Lifeboats
6 Helicopters

Fleet Operational Capability

The Fleet Operational Capability program sub-activity includes fleet operations, fleet management and the provision of fleet personnel. This program ensures that certificated professionals safely, effectively, and efficiently operate vessels, air cushion vehicles, helicopters, and small craft that are ready to respond to the Government of Canada's on-water and marine related needs.

Coast Guard Fleet Operational Capability

Provides these services...	Measured this way...*	With these targets...
Operational vessels, Air Cushion Vehicles, helicopters, and small craft	Percentage of operational days delivered versus client approved planned	> 97%
To achieve this result...	**Measured this way...***	**With these targets...**
Client missions are delivered according to mutually agreed plans	Percentage of client mission completion versus client approved planned	90%

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Table 11 : Fleet Operational Readiness Resource Profile, 2011-2012 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	33,594	19,826	**53,420**
Maritimes	23,664	7,865	**31,529**
Quebec	27,814	14,027	**41,841**
Central and Arctic	22,960	7,717	**30,677**
Pacific	30,977	11,269	**42,246**
National Capital Region	41,346	9,915	**51,261**
Direct Program Total	**180,356**	**70,620**	**250,975**

Key initiatives

Operationalizing New and Replacement Vessels

Operationalizing a vessel comprises all of the activities that must take place in the short period of time between delivery from the shipyard to the start of program delivery. It includes such things as transit to its home region, crew familiarization, pre-sailing exercises to respond to routine and emergency situations, fitting the vessel with stores and equipment not provided by the contractor, shore-support familiarization and client and partner exercises. For more details on the Mid-Shore Patrol Vessels and the Air Cushion Vehicle please refer to Procurement of New and Replacement Vessels on page 14.

Mid-Shore Patrol Vessels

Commitment	Lead
2011-2012	
Operationalize and support receipt of the first Mid-Shore Patrol Vessel in C&A Region.	AC, C&A
2012-2013	
Operationalize and support receipt of the second and third Mid-Shore Patrol Vessels in Quebec and C&A Regions.	AC, Quebec AC, C&A

Cape Class Search and Rescue (SAR) 47-foot Motor Lifeboats

Commitment	Lead
2011-2012	
Operationalize and support receipt of three Cape Class SAR 47-foot motor Lifeboats.	AC, Pacific

Air Cushion Vehicle (ACV)

Commitment	Lead
2013-2014	
Operationalize and support receipt of the ACV.	AC, Pacific

Ongoing Improvements in Fleet Management

To sustain an operationally ready fleet capable of meeting service demands, Fleet management will continue to pursue internal efficiencies to optimize national consistency, organizational effectiveness, and linkages with regions and clients. With this in mind, the Coast Guard fleet will continue to examine how it conducts business and make the improvements needed to enhance service as part of the ongoing Service Level Agreement pilot process. CCG Fleet will continue to invest in the improvement of its Fleet Activity Information

System (FAIS), now known as iFleet. It captures the actual activities of fleet vessels on an hourly basis and provides information to all levels of management. The system is essential to effective decision-making, planning, performance measurement, and reporting at all levels of management and to the public.

Human Resources Initiatives

Seagoing personnel (Ships' Officers, Ships' Crew, Hovercraft Pilots and Engineers) represent approximately 53% of the total CCG workforce. Shipboard occupations and the related operational environment experienced by mariners are quite distinct from those encountered by CCG's shore-based personnel. Fleet's 24/7 operations require the use of different crewing systems based on variations of hourly averaging, where employees work approximately 40 hours per week. Ships remain at sea for extended periods of time; the work is demanding and is often performed under difficult physical conditions. Additionally, while seafaring has been predominantly a male career, Coast Guard is focusing efforts on recruiting more women into seagoing positions.

As a matter of ongoing management, CCG will continue to build on the human resources initiatives related to the fleet announced in 2007-2008 and on the Fleet Human Resources Development Program launched in 2008-2009; initiatives that will help us achieve a strengthened, fully integrated, national fleet. Further, we will carry out analyses that will form the framework of a manual that defines crewing principles for CCG vessels. This manual will be based on two overarching principles; ensuring a consistent national approach to crewing across the country, and ensuring that CCG vessel class crewing evaluations are aligned with internal, national and international safety, security and labour practices.

In addition, CCG will also implement the newly developed Ships' Crew Certification Program, which will provide incentives to qualified Ships' Crew to aspire to positions as Ships' Officers, thereby contributing to more effective succession plans for seagoing personnel. CCG Management Board will be presented with a comprehensive proposal for establishing an East Coast Small Craft Training Facility, and Fleet will continue its work to solidify the Operational Women's Network. Also, with respect to establishing *Bona Fide Occupational Requirements* for vision for seafarers, linked to national and international regulatory requirements, CCG will remain in contact with Transport Canada who is the regulatory lead in this area.

Commitment	Lead
2011-2012	
Continue to develop a detailed syllabus for each of the specific certificate modules and begin implementation of the Ships' Crew Certification Program.	DG, Fleet

Fleet Maintenance

The Fleet Maintenance program sub-activity includes the management and delivery of maintenance services during the operational lives of the vessels, air cushion vehicles, helicopters and small craft in order to ensure their availability and reliability to deliver fleet services. The Fleet Maintenance program sub-activity ensures availability and reliability of vessels through the provision of life-cycle investment planning, engineering, maintenance and disposal services.

Coast Guard Fleet Maintenance

Provides these services...	Measured this way...*	With these targets...
Maintained vessels, Air Cushion Vehicles	Percentage of change in condition rating compared to 2009-2010 baseline rating	3% increase over a three year period

To achieve this result...	Measured this way...*	With these targets...
Vessels, Air Cushion Vehicles, helicopters, and small craft are available to deliver CCG Programs	Percentage of operational days lost due to breakdowns – vessel is pulled from its program for technical reasons (this excludes helicopters and small craft)	< 3%

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Key initiatives

Improved Maintenance of the Existing Fleet

For details related to improved maintenance of the existing fleet please refer to the Improve Asset Maintenance priority on page 17.

Fleet Procurement

The Canadian Coast Guard Fleet Procurement Program manages the acquisition of new vessels, air cushion vehicles (ACVs), helicopters, and small craft to meet the needs of the CCG as identified in the Fleet Renewal Plan. The Fleet Procurement Program has approved funding in place for the procurement of 14 new large ships and a new ACV. The Program provides project management and internal controls (i.e., challenge function to project scope, expenditure management, etc) and ensures that new vessels are delivered according to an approved schedule. For details on vessel procurement activities please refer to Coast Guard's Fleet Renewal Initiatives on page 13.

Reinvestment in the Fleet asset base

The government has made significant investments in the fleet asset base. In recent federal budgets, the Coast Guard has received just over $1.4 billion to acquire up to 15 new large vessels. As we acquire new vessels, we continue to invest in our existing fleet to optimize its availability and reliability. Coast Guard will be investing in a total of 31 capital projects with a value of $226.7 million in 2011-2012 to refit, replace or procure vessels and vessel operational systems.

Coast Guard Fleet Procurement

Provides these services...	Measured this way...*	With these targets...
New large vessels, air cushion vehicles, helicopters, and small craft	Percentage of critical project milestones achieved versus planned	95%
	Percentage of vessels, Air Cushion Vehicles, helicopters and small craft delivered versus planned	100%

To achieve this result...	Measured this way...*	With these targets...
The Canadian Coast Guard has access to a fleet of modern vessels which meet the operational needs and requirements identified in the Fleet Renewal Plan	Average age of the Fleet of large vessels and small vessels (this excludes helicopters and small craft)	< 29 years (large vessels) < 16 years (small vessels)

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

SHORE-BASED ASSET READINESS (PREVIOUSLY LIFECYCLE ASSET MANAGEMENT SERVICES)

The CCG Shore-based Asset Readiness (SBAR) program ensures CCG's non-fleet assets (worth $1.5 billion) are available and reliable to support delivery of CCG programs. These non-fleet assets include both fixed and floating aids, such as visual aids (e.g. fixed aids and buoys), sound aids (e.g. fog horns), radar aids (e.g. reflectors and beacons) and long-range marine aids, namely the Differential Global Positioning System (DGPS) as well as electronic communication and navigation systems and over 300 radio towers. The Shore-based Asset Readiness program ensures availability and reliability of these assets through provision of life-cycle asset management activities such as investment planning, engineering, acquisition, maintenance and disposal services.

What we do...

- Provide partner/client programs with advice and recommendations about the procurement and maintenance of program assets;
- Prepare engineering drawings and specifications, acquire necessary assets or services, and build and/ or install approved technical solutions;
- Conduct the predictive, preventative and corrective maintenance actions required to preserve or restore the operating capability and reliability of assets, systems, and equipment; and
- Ensure the economical, safe, and environmentally responsible disposal of assets, systems and equipment.

The Shore-based Asset Readiness program is delivered by...

- **CCG Integrated Technical Services (ITS) –** Engineers, technicians, technologists, trades people, managers, and support staff located in over 70 workshops and offices across the five CCG regions and National Headquarters work to ensure that CCG shore-based assets are available and reliable to support CCG programs such as Aids to Navigation and Marine Communications and Traffic Services.

Who we serve...

The SBAR Program serves primarily Maritime Services Directorate within the CCG in support of its Marine Communication and Traffic Services and Aids to Navigation programs but also provides asset management services to DFO Science and DFO Conservation and Protection, as well as providing ship radio inspections on behalf of Transport Canada as part of the regulatory framework of the *Canada Shipping Act*.

Looking forward…

Building on the recent Life Cycle Asset Management Services (LCAMS) Program Evaluation (SBAR was formerly the LCAMS Program), CCG will continue to strengthen its asset maintenance management practices and systems to achieve the SBAR program outcome: shore-based assets are available to deliver CCG programs. Recognizing the importance of maintaining CCG assets to support CCG program delivery, improved asset maintenance has been identified as a strategic priority. For details see Improve Asset Maintenance on page 17.

Looking ahead, the program will focus on strengthening relationships with CCG partners, and on improving its internal management processes and tools for program planning, performance monitoring, and performance improvements. The program will also focus on having a dedicated and skilled workforce to manage and deliver life cycle asset management services, as well as on ensuring sound stewardship of the financial resources and information needed to manage and deliver these services.

Shore-based Asset Readiness

Provides these services…	Measured this way…*	With these targets…
Maintained shore-based assets	Percentage of change in condition rating compared to 2010-2011 baseline rating	3% increase over a 3 year period

To achieve this result…	Measured this way…*	With these targets…
Shore-based assets are available to deliver CCG Programs	Percentage of Service Level Agreements commitments met: ▪ MCTS assets ▪ Aids to Navigation assets	90%

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Table 12 : Shore-Based Asset Readiness Resource Profile, 2011-2012 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	8,054	3,501	**11,555**
Maritimes	9,139	3,598	**12,738**
Quebec	8,673	5,082	**13,755**
Central and Arctic	8,769	2,802	**11,571**
Pacific	9,276	3,757	**13,033**
National Capital Region	11,297	6,266	**17,562**
Direct Program Total	**55,209**	**25,007**	**80,215**

Key initiatives

The key initiatives under Shore-based Asset Readiness Program are divided into two categories. The first category relates to initiatives to improve asset maintenance practices and the second one relates to the engineering and asset maintenance services delivered to CCG partners and other government departments to ensure their program assets are available and reliable. The commitment related to the first category can be found under the Asset Renewal Priority (see page 17), while the key initiatives to deliver on-going asset maintenance services to meet partner and client demands are presented below.

ITS is committed to delivering asset management services as efficiently as possible. To do so, it strives to continuously improve its maintenance practices for the existing shore-based infrastructure. This, in turn, improves the availability and reliability of our shore-based infrastructure. In addition to developing the Long-term Plan for Shore-based Infrastructure (see page 17), ITS will focus on putting in place or updating the maintenance plans and manuals that are fundamental to its ongoing commitment to provide planned maintenance services.

Commitment	Lead
2011-2012	
Publish the Electronics and Informatics Volume of the Engineering Maintenance Manual.	DG, ITS
Publish the engineering and maintenance manual for electronics and informatics.	DG, ITS
Deliver standardized maintenance plans for shore-based infrastructure in accordance with the evaluation of the risk for navigation.	DG, ITS
Implement standardized maintenance plans for selected shore-based infrastructure in accordance with the evaluation of the risk for navigation.	ACs
2012-2013	
Implement engineering and maintenance manual for electronics and informatics.	ACs

Loran-C Infrastructure Removal

As a result of the United States Coast Guard and the Canadian Coast Guard announcement in August 2010 to terminate LORAN C service in North America, CCG will remove Canada's LORAN C system located in the Newfoundland and Pacific Regions.

The project consists of removing the infrastructure and conducting environmental assessments of five transmitting sites. The asset base and supporting infrastructure includes towers, buildings, equipment, power systems, fuel storage and access roads.

Commitment	Lead
2011-2012	
Commence removal of the Loran-C equipment and towers, secure the remaining infrastructure and undertake environmental assessments at the transmitting sites.	AC, Pacific AC, NL
2012-2013	
Finalize the removal of Loran-C equipment and towers, and based on the environmental assessment develop a remediation plan to remove the remaining infrastructure in order to divest the properties.	AC, Pacific AC, NL

Health, Safety and Environment (HSE) Compliance Management System

The Coast Guard is subject to federal health, safety and environmental legislation and regulations, namely Part II of the Canada Labour Code, the Centre for Occupational Health and Safety (COHS) Regulations, the Marine Occupational Safety and Health Regulations (MOSH), Canadian Environmental Protection Act (CEPA) and other applicable policies, directives, standards and procedures. Currently, the CCG has in place a national Fleet Safety Management System (SMS) for CCG on-board vessel operations to comply with applicable legislation and associated policy framework. While there are some regional procedures addressing health, safety and environmental for shore-side CCG operations, a national health, safety and environmental management system does not exist. As such, the CCG Management Board has endorsed the implementation of a national HSE Compliance Management System for all CCG shore-based operations.

The HSE Compliance Management System will 'operationalize' DFO's OHS and Environmental programs for CCG's operations ashore. It will also introduce an HSE Compliance audit program to ensure consistent management of HSE across all regions. The benefits of the HSE Compliance Management System for CCG shore-side operations include:

- Compliance to internal and external requirements and demonstrate due diligence;
- An expected reduction in injury rates and improved environmental performance including associated costs as a result of increased employee awareness of risks, hazards through training and awareness initiatives, workplace inspections etc;
- A nationally consistent and pro-active (less reactive) approach to HSE compliance;
- Identification of gaps and the prioritization of risks resulting in new safety procedures; and
- Improved safety culture across CCG shore-side operations.

Commitment	Lead
2011-2012	
Seek approval of the multi-year strategy to implement the national HSE Compliance Management System.	DG, ITS DC, Operations
Commence the development of HSE products to address high priority HSE gaps and risks.	DG, ITS

Technical Solution Centres (Electronics)

The Technical Solution Centre (TSC) is a service delivery model that focuses on maintenance services provided to the MCTS program. TSC has three service delivery elements:

1. National Service Level Agreements (SLAs) establishing expectations for the Centres and the relationship between partners/clients and ITS. The use of SLAs is intended to ensure that partners and clients are satisfied with ITS services;
2. A solutions centre in each region that allows partners/clients to raise service requests for the repair of assets/equipment; and
3. The ability within ITS to troubleshoot and remotely restore asset functionality.

TSC has been in operation in the Quebec Region and is now being implemented in all other CCG Regions. Since the Quebec Region has been using this service delivery model for some time, the Region will launch a pilot project for expanding the use of the TSC to manage services for ship-board electronic networks. By optimizing maintenance services, TSCs ensure program availability, program reliability, and partner/client satisfaction.

Commitment	Lead
2011-2012	
Further develop the regions' remote monitoring and repair capabilities of the TSC.	DG, ITS

Reinvestment in the asset base

The Shore-based Asset Readiness (SBAR) program focuses on delivering asset management services to ensure CCG assets are available and reliable. In order to deliver these services and to meet SBAR program results, Coast Guard must have at its disposal heavy equipment, vehicles and trucks to transport CCG assets or technical personnel to sites as well as information systems and networks to conduct maintenance activities. SBAR plans on spending $4.4 million on its asset base to effectively deliver its program.

CANADIAN COAST GUARD COLLEGE

The Canadian Coast Guard College is the main operational and technical training facility for CCG. Its mission is to train and develop marine professionals in support of CCG-mandated programs in marine safety, security, and environmental protection. As CCG's training centre of expertise, the College delivers quality, bilingual maritime training and services.

The College offers core national educational programs in four streams: CCG Officer Training Program and continued technical training for seagoing personnel, Marine Communications and Traffic Services, Marine Maintenance and Equipment Training, and Rescue, Safety, and Environmental Response.

As a residential training facility, the College employs approximately 112 people, including 57 instructors and 55 full-time staff dedicated to academic support, general administration and management of the institution, campus services, recruitment, library, food services and information technology.

2010-2011 ACCOMPLISHMENTS

- Provided training to 188 students in the Officer Training Program
- Graduated 23 Ships' Officers and 18 MCTS Officers
- Provided training to 116 Electronic Technicians from all regions in Canada which resulted in 923 training days.
- Delivered six training sessions in Search and Rescue and two training sessions in Emergency Response to 80 Coast Guard Personnel
- Conducted a complete review of the four-year Coast Guard Officer Training Program to ensure alignment with regulatory bodies.
- Launched a "training week" for College employees which offered 66 training sessions, in both official languages, to support learning and development.
- Strengthened the relationship with First Nations communities and embarked on a pilot initiative aimed at increasing awareness and access to career opportunities with the Canadian Coast Guard.

Canadian Coast Guard College

Provides these services...	Measured this way...*	With these targets...
Professional Development Courses (Marine Maintenance and Equipment Training, Environmental Response, Search and Rescue)	Percentage of marine pollution responses with trained personnel, strategically placed equipment, and a mobilization plan	100%
Training Programs (Marine Communications & Traffic Services Officers and Ships Officers)	Number of graduates of the Officer Training Program	28
	Number of graduates of the Marine Communications & Traffic Services (MCTS) Officer program	19

To achieve this result...	Measured this way...*	With these targets...
CCG has access to trained operational personnel in support of Coast Guard programs	Percentage of Officer Training Program graduates to approved trainee intake	70%
	Percentage of Marine Communications & Traffic Services Officer graduates to approved trainee intake	90%

** These are the performance indicators in the 2011-2012 CCG Performance Measurement Framework.*

Table 13 : Number of Cadets at the Canadian Coast Guard College

Officer Training Program – Ships' Officers	Forecasted Number of Students
Fiscal year 2011-2012	211 Students
Fiscal Year 2012-2013	251 Students
Fiscal Year 2013-2014	278 Students

- *Based on September 2011 class intake target of 64 students per year*
- *Intake target subject to change based on Fleet requirements*

MCTS Program – *Ab initio* Program	Total Number of Students
2011-2012	20*
2012-2013	20*

** Based on forecasted regional requirement.*

Table 14 : Financial Allocations by Region, 2011-2012 (thousands of dollars)

Region	Salary	O&M	Total
Canadian Coast Guard College	8,118	4,734	12,852
National Programs		22	22
Direct Program Total	**8,118**	**4,756**	**12,874**
Fleet Operational Readiness Allocation			
Shore-Based Asset Readiness Allocation	124	56	180
Total Service Cost	**8,242**	**4,812**	**13,054**

Key initiatives

Canadian Coast Guard College Transformation Initiative

The Coast Guard College developed a Transformation Plan in 2009-2010 to renew the College's organizational structure to more effectively respond to growing demand for Coast Guard training. Significant implementation of the transformation plan took place in 2010-2011 with the creation and staffing of key positions.

A complete review of the four-year Coast Guard Officer Training Program was conducted in 2010-11 to ensure the needs of the Coast Guard Fleet for competent officers are met. As well, the review focused on Transport Canada national training standards and the viability of the Bachelor of Technology degree conferred by Cape Breton University. Implementation of the recommendations of the Officer Training Program review will commence in August 2011.

The College strengthened its business processes by establishing costing models which define clearly that the financial requirements of the organization are properly structured and operating within available resources thereby improving the overall institutional effectiveness and efficiency.

In 2010-2011 the College established an internal governance framework and began development of a quality assurance framework which will ensure College programs meet the requirements of accrediting and certifying bodies (e.g. Transport Canada, Coast Guard Fleet and Cape Breton University).

The College will continue to work with stakeholders to ensure optimal program delivery in response to client requirements.

In alignment with Coast Guard's focus on people, the College delivered a Training Week in the fall of 2010, for students and employees, offering 66 courses in both official languages. Partnering with the Canada School of Public Service, the College hosted five foundational learning program courses for Coast Guard College employees as well as other federal government employees. In October 2011, the Canada School of Public Service will again deliver two courses – Orientation to the Public Service – (English & French) to first year trainees in the Coast Guard Officer Training Program, new College employees, as well as employees from other federal departments who are required to take the foundational course.

In 2010-2011, the College established a number of developmental language training opportunities for employees at all groups and levels through weekday lunch sessions and evening classes at beginner, intermediate and advanced levels. A five-week intensive French language program will be offered during July 2011 to College and other government employees. Enhancing language training capacity for employees and students is a fundamental element of the Transformation Plan.

Infrastructure renewal continued in 2010-2011 with the replacement of two key pieces of program training simulators: the Marine Propulsion Plan Simulator and the Blind Pilotage Radar Simulator. The new training platform was installed in June 2011 and will be used by students beginning in September 2011.

The College is responsible for the annual national recruitment campaign for the Coast Guard Officer Training Program. Recruitment activities in 2010-2011 focussed on creating awareness of Coast Guard College training programs through strategic investment in media advertising aimed at under-represented regions and targeting designated groups where gaps exist between labor force availability and labor force participation.

The College continued to strengthen relationships with the First Nations Communities in Nova Scotia through hosting a meeting of the Nova Scotia First Nations' Education Working Group in May 2010 as well as a one-week Science Camp in July 2010 for Aboriginal youth providing hands-on experience in marine science. In 2011-2012 the College will continue to work with First Nations Communities to offer opportunities to expose Aboriginal youth to career choices within the Canadian Coast Guard. These initiatives demonstrate Coast Guard's commitment to improving diversity in its workforce by fostering awareness of career opportunities.

Throughout 2011-2012 the College will continue to effect the *Transformation Agenda* with the goal of achieving the highest quality of training in both offical languages in response to future Coast Guard requirements.

College training programs rely heavily on simulation technology which provides students with a realistic yet safe learning environment. Supporting and sustaining this technology and infrastructure are critical to the success of the College training program. Working collaboratively with Integrated Technical Services to establish a life-cycle asset management framework will ensure optimal maintenance of the asset base and training infrastructure.

Commitment	Lead
2011-2012	
Develop a life-cycle asset management framework for the Canadian Coast Guard College to ensure asset availability.	ED, College DG, ITS

INTERNATIONAL ACTIVITIES

The safety, security and sustainability of the three oceans that border Canada are in part the responsibility of the CCG. That said, much of what happens in the marine environment *globally* can have an impact on our environment. For this and other reasons, the CCG, through its program and service delivery, attends several international meetings and is involved in a number of joint training exercises. By working closely with many related organizations, the CCG advances our common objectives of marine safety and security. Sharing best practices and providing expert advice to foreign governments on coast guard operational issues is vital to ensuring the health and safety of the world's oceans.

Commitment	Lead
2011-2012	
Attend the North Atlantic Coast Guard Forum (NACGF) Experts Meeting in La Rochelle, France.	AC, NL
Participate in the North Pacific Coast Guard Forum Multi-mission, Multi-lateral Exercise in Hawaii.	AC, Pacific
Attend the NACGF Summit in Brest, France.	Commissioner
Attend the NPCGF Summit in Yokohama, Japan.	Commissioner
Continue to provide a web platform for the North Atlantic Coast Guard Forum.	AC, NL
2012-2013	
Host the 6th CCG-USCG Coast Guard Summit in Victoria.	Commissioner
Host a major maritime exercise in the North Pacific maritime region with other members of the North Pacific Coast Guard Forum.	AC, Pacific

2010-2011 ACCOMPLISHMENTS

- Hosted the 11th North Pacific Coast Guard Forum Summit Meeting in Vancouver on behalf of the Government of Canada and a multi-departmental team.
- Attended the 5th CCG - United States Coast Guard (USCG) Summit in Boston.
- Hosted a delegation from the Korea Coast Guard interested in the training and professional development of our Ships' Officers and Ships' Crew.
- Hosted a delegation of the Coast Guard Department of the Russian Federal Border Service to discuss North Pacific Coast Guard Forum and Arctic issues.
- Participated in Operation NANOOK, Canada's Maritime Command-led annual joint training disaster and sovereignty patrol exercise.
- Participated with the USCG in CANUSNORTH – the biennial international environmental response tabletop exercise.

Below are a few examples of our international activities:

- A CCG-led Canadian delegation participates in the North Pacific Coast Guard Forum (NPCGF) which comprises six member countries (Canada, China, Japan, Korea, Russia and the United States) that meet twice a year to discuss matters related to combined operations, information exchange, illegal drug trafficking, maritime security, fisheries enforcement and illegal migration. Every year there is an Experts Meeting in the spring, when the work directed by Principals is undertaken. The Summit of Principals, at which the lead representatives of member countries review and approve the recommendations of the experts and establish the Forum's direction for the following year, is held in the fall. The responsibility to host these meetings rotates among the six member countries, and Canada took its turn in 2010, successfully hosting both meetings. The Experts Meeting was held in Victoria in March, with the Summit taking place in Vancouver in September. As responsibility for hosting in 2011 fell to Japan, CCG led a Canadian delegation to Tokyo in February; officials will attend the Summit Meeting in Yokohama in September 2011.

- The Canadian delegation to North Atlantic Coast Guard Forum (NACGF) meetings is also led by CCG; that forum comprises 20 nations, of which most are members of the European Union. Its focus is also on marine safety and security, but in the North Atlantic maritime region. CCG led the delegation to the September 2010 Summit in Norway and will attend the Experts Meeting in April 2011, in La Rochelle, France and the Summit scheduled for September 2011 in Brest, France.
- CCG works with several international organizations such as the International Maritime Organization (IMO) and the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA). This cooperation leads to the development of common rules, regulations, policy and technology for safe and secure marine navigation. These organizations also develop and recommend technical standards for aids to navigation and automatic identification systems (AIS) – areas that are among CCG's core responsibilities and activities here in Canada.
- Being neighbours, CCG and the United Stated Coast Guard share maritime interests as well as a number of clients and stakeholders. Our efforts at continuous improvement involve performing joint exercises on a regular basis. Approximately yearly, a summit of the leaders of both organizations is held to ensure ongoing cooperation and provide guidance for this valuable partnership. The 2009 Québec City Summit led to the signing of the *Memorandum of Understanding on Ship and Design Construction*. This Memorandum promotes sharing valuable technical and scientific information on research, design, analysis, development, testing and evaluation of ship design and construction techniques. Key members of the CCG project team visited the Bollinger shipyard in Lockport, Louisiana in March 2011 to benefit from the USCG experience managing a multiple ship build. The USCG has expressed interest in a reciprocal visit to the Mid-Shore Patrol Vessels on-site project office in Halifax in the spring or summer 2011. The CCG also attended the USCG-hosted Summit in Boston in February 2011.
- In the spirit of cooperation and commitment to sharing best practices to achieve safety and security in the maritime environment, CCG welcomes foreign coast guard delegations. In December, CCG hosted a delegation from the Korea Coast Guard interested in learning more about our training and professional development of our Ships' Officers and Ships' Crew. Later that same month, CCG hosted a meeting with a delegation from the Coast Guard Department of the Russian Federal Border Service to discuss our on-going collaboration at the NPCGF and the maritime challenges both countries face in the Arctic pertaining to search and rescue, the potential for marine pollution spills in the marine environment, and security threats.

6 SECTION SIX: FINANCIAL INFORMATION

STATUS OF FINANCIAL MANAGEMENT INITIATIVES IN THE COAST GUARD

The Canadian Coast Guard has made significant progress in addressing many of the financial issues it has faced over the past few years. Through programs such as the Economic Action Plan and other investments in its Fleet, the Agency has seen over a billion dollars invested in its assets which has helped to address some of the most pressing reliability issues. Despite these investments, CCG continues to face significant sustainability challenges for the balance of its assets.

We are an operational entity with a national mandate that is heavily reliant on assets and people to deliver front-line service to Canadians. As such, the Agency faces some unique challenges that impact the planning and financing of its programs. In the coming years, the Coast Guard will need to continue providing financial planning and execution rigour to manage the growing pressure on its operating budget.

OPERATING ENVIRONMENT

The Coast Guard continues to adjust to overall economic trends and government-wide decisions. Associated to financial planning, the most significant recent items are:

- Plans, including some internal reallocation of budgets, have been adjusted on a regular basis due to the recent and significant fluctuations in the price of fuel. Fuel costs in 2010-2011 were managed within available resources due to a light year for icebreaking services (weather dependent). In 2011-2012, given typical operations, the current fuel price projections will create a significant budget pressure for the CCG.

Photo: Ivan Moran

- Along with all other departments and agencies, the CCG is involved with the announced measures to address the Canadian deficit. The CCG has undergone a budget reduction exercise with savings being announced against the implementation plans that started in 2011-2012.
- Also as part of the 2010-2011 budgetary constraints, the CCG salary envelope was frozen for 2010-2011 and 2011-2012 and the CCG has had to proactively manage its salary costs within its current reference level. This measure has been particularly difficult for the Coast Guard to absorb since, for safety reasons, such a large portion of our workforce must be replaced following a departure.
- Revenue-dependent services will continue to be an area of financial uncertainty for the CCG. As the economy rebounds from a recent recessionary period, shipping in Canada will increase. In parallel, recent warmer temperatures have extended the shipping season and prolonged the requirements for icebreaking services. In recent years the CCG has not reached its total revenue targets. Despite the lower revenue, we have maintained our advertised levels of service to Canadians resulting in a financial pressure.
- March 2011 saw the end of the Economic Action Plan funding. The CCG was the net beneficiary of those funds and leveraged the $175M in funding over two years for the completion of significant vessel repair and the construction of several more vessels.

To date, the Coast Guard has been able to manage within this environment without any significant reductions in advertised levels of service. This is partially a result of government wide restraint measures introduced in 2009 associated to discretionary budget areas and CCG's ongoing policy of reallocating funds from lower to higher priorities. CCG strives to maintain service levels to Canadians while being challenged by decreasing funds.

ASSETS AND LIABILITIES

CCG uses a wide range of equipment and other physical assets to carry out its day-to-day activities. The CCG Asset base is made up of 15,211 individual assets with individual values greater than $10,000. They can be divided into two broad categories:

- Equipment and Other Moveable Assets – land- and water-based assets (other than vessels) used in the delivery of CCG's programs (e.g. fixed and floating aids to navigation, communication towers, etc.). This category also includes Life-cycle Asset Management Assets (assets used in support of other CCG operations, e.g. fleet of vehicles, land-based cranes and forklifts, program-specific information systems) and Coast Guard College Assets (assets and facilities used in support of the training needs of the Agency at the Coast Guard College).

CCG's Program Infrastructure includes facilities that are used every day to keep mariners safe in Canadian waters, including: lighthouses, foghorns, communication enters, Global Positioning System (GPS) markers and navigation buoys.

- Fleet Assets – helicopters, small vessels and large vessels are used to deliver the programs of CCG, DFO and other external clients.

CCG's Fleet includes a wide range of vessels, varying in size from heavy icebreakers that operate in Canada's Arctic and keep the St. Lawrence Seaway open year-round to shipping traffic, to small rigid-hulled inflatables that carry out rescue and patrols on inland waterways.

The replacement value of CCG's assets is $14 billion. The realities of today's shipbuilding costs were incorporated into the replacement value as evaluated in the most recent Fleet Renewal Plan.

Although CCG's assets carry a replacement value of $14 billion, the depreciated book value of the entire asset base is $725M. In line with the categories outlined above, CCG's assets for planning and management are:

- $12.5 billion in Fleet assets with a net book value of $473M; and
- $1.5 billion in equipment and other moveable assets with a net book value of $252M.

In recent years it has become apparent that the inadequate recapitalization of our assets would eventually result in the inability of CCG to sustain its required levels of service. As such, there have been a number of financial infusions in recent federal budgets and from the Economic Action Plan, such as the Mid-Shore Patrol Vessels and Polar Icebreaker.

Despite these investments, CCG's overall asset base continues to deteriorate. In parallel, the CCG must also respond to rapidly accelerating change as technological advancements are revolutionizing communications and aids to navigation services are moving away from traditional physical aids to modern electronic systems and information based services. Significant strategic investments will be required to enable the CCG to move forward effectively.

The continued deterioration of this asset base is also a reflection of the enormous challenge posed by the sheer size of Canada. While there have been improvements, there is still a continued reliance on outdated and fully depreciated infrastructure as recapitalization has not kept up with the rate of depreciation. Asset condition will need to be addressed to ensure that the CCG can maintain the current service levels to Canadians.

In order to better communicate our asset management and investment planning picture in a more holistic and integrated manner, CCG has embarked upon an initiative to update its overall planning process for capital investments. Now in its third year, the Integrated Investment Planning process ensures that our investment decisions are based on a full assessment of risk, priority and capability requirements.

IMPACT OF RECENT FUNDING INJECTIONS

The Economic Action Plan (EAP) funding has provided a welcome short-term infusion of investment funding which generated economic benefit for Canada and addressed some of CCG's outstanding investment requirements that were not affordable within CCG's available funding envelope. CCG received $175M in EAP funding across six investment projects in 2009-2010 and 2010-2011.

This additional funding for our fleet assets will produce very tangible results for the programs we support and allow CCG to maintain the maritime service excellence that our clients rely on.

CONCLUSION

Without increases to our operating budgets, the level of service that we can provide with the same dollar each year declines. Complicating the effects of inflation, we are also experiencing greater demands for our limited dollars.

A large portion of our assets continues to deteriorate. The Coast Guard's Integrated Investment Plan shows that we are not investing enough funds in the replacement of our shore-based assets. As these assets age, greater pressure is put on our operating budgets just to keep them in service. This forces us into a reactive mode, and prevents the Agency from making pro-active allocation decisions.

Many of these pressures are not new for the Coast Guard. In fact they have existed for years. We have realigned our funding and refined our business to find efficiencies to address these pressures. However, the compounded effect of years of pressures with new restraint initiatives is making it challenging for the CCG to continue to meet its service levels.

To help minimize the impact of financial pressures, the Coast Guard will continue to engage in ongoing reviews of funding and reallocations and we will seek ways of improving how we do business to seek efficiencies.

Table 15 : CCG Derivation of 2011-2012 Budget Allocation

Program-Activity and Sub-activity	Salary	O&M	Sub-Total	Major Capital	Contributions	VNR	Total
Total available for CCG program activities in 2010-11	306,045	146,286	452,331	267,683	4,921	(47,914)	**676,602**
Reduction in cost recovery for services from EOSS and EFM programs within the DFO		(3,628)	(3,628)				**(3,628)**
NAVAREA funding	677	46	723				**723**
Sunsetting of Economic Action Plan funding			0	(85,000)			**(85,000)**
Vessel procurement funding			0	54,534			**54,534**
Efficiency savings		(1,184)	(1,184)				**(1,184)**
Structural Change Related to Ship's Officer Contract Settlements	4,464		4,464				**4,464**
Adjustments to program funding (includes some sunsetting funds)	(150)	453	303				**303**
Budget Adjustment and O&M to Salary conversions	6,263	(4,091)	2,172			(100)	**2,072**
Total available for CCG program activities in 2011-12	**317,299**	**137,882**	**455,181**	**237,217**	**4,921**	**(48,014)**	**649,305**

Table 16 : CCG Vote 1 and Vote 5 Lower Level Budget Allocations

Region		Vote 1						Vote 5
		Salary	O&M	Fuel	VNR	Minor Capital	Vote 1 Total	Major Capital
Newfoundland		52,735	13,171	11,640	15	590	78,151	**27,845**
Maritimes		44,071	10,724	3,792		(76)	58,511	**9,860**
Quebec		48,286	15,361	7,809	(4,600)	1,414	68,270	**18,864**
Central & Arctic		40,463	12,331	2,756	(27)	38	55,561	**10,343**
Pacific		56,076	14,247	3,513	(148)	962	74,650	**9,326**
NCR	Commissioner	976	233				1,209	
	Maritime Services	8,125	14,740		(41,554)		(18,689)	**7,096**
	Fleet	43,335	8,350				51,685	**12,398**
	Integrated Technical Services	5,988	5,531				11,519	**33,799**
	Integrated Business Management Services	2,863	770				3,633	
	Vessel Procurement						0	**107,686**
	Canadian Coast Guard College	7,782	4,477		(1,700)	(17)	10,542	
	Maritime Security	3,616	1,886				5,502	
	P&C/Other	2,984	3,640				6,624	
	NCR Total	75,668	39,627		(43,254)	(17)	72,025	**160,979**
Total CCG		**317,299**	**105,461**	**29,510**	**(48,014)**	**2,911**	**407,168**	**237,217**

Table 17 : Financial Allocations by Program Activity, 2011-2012 (thousands of dollars)

Program Activity	Salary	O&M	Total Operating	Major Capital	Grants and Contributions	Total Planned Spending**
Aids to Navigation Services	12,626	6,134	18,760			**18,760**
Waterways Management Services	2,965	6,258	9,222			**9,222**
Marine Communications and Traffic Services	33, 645	6,240	39,885			**39,885**
Icebreaking Services	1,005	9,150	10,155			**10,155**
Search and Rescue Services	12,059	4,047	16,106		4,921	**21,027**
Environmental Response Services	6,495	2,949	9,443			**9,443**
Maritime Security	4,823	2,723	7,545			**7,545**
Canadian Coast Guard College	8,118	4,756	12,874			**12,874**
Fleet Operational Readiness*	180,356	70,620	250,975	226,607		**477,582**
Shore Based Asset Readiness	55,209	25,006	80,215	49,586		**129,801**
Total	**317,299**	**137,882**	**455,181**	**276,194**	**4,921**	**736,405**

** O&M does not include fuel for EFM, Oceans and Science Sector & NAFO of $7.8M*

*** Excludes Vote-Netted Revenue (VNR)*

Table 18 : Financial Allocations by Region, 2011-2012 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	53, 322	26,033	**79,355**
Maritimes	44,071	14,450	**58,521**
Quebec	48,286	24,584	**72,870**
Central & Arctic	40,463	15,136	**55,599**
Pacific	56,076	18,724	**74,800**
National Capital Region*	75,080	38,955	**114,036**
Total	**317,299**	**137,882**	**455,181**

** Funding in NCR includes a total of $61.1M related to National Programs – these funds will ultimately be spent in the regions; distribution of those funds has not yet occurred.*

Table 19 : Financial Allocation by Program Activity by Region, 2011-2012 (thousands of dollars)

Program Activity	Newfoundland and Labrador	Maritimes	Quebec	Central & Arctic	Pacific	National Capital Region	National Programs	Total
Aids to Navigation Services	3,785	2,598	755	1,482	5,249	4,867	25	**18,760**
Waterways Management Services	7	976	4,775	822	280	2,288	75	**9,222**
Marine Communications and Traffic Services	6,179	5,945	6,530	6,157	10,408	4,667		**39,885**
Icebreaking Services	63	93	179	115	8	948	8,750	**10,155**
Search and Rescue Services	3,333	3,711	2,422	2,930	2,717	5,913		**21,027**
Environmental Response Services	1,414	1,332	1,364	1,938	1,350	2,045		**9,443**
Maritime Security			1,648	307	10	724	4,857	**7,545**
Canadian Coast Guard College						12,874		**12,874**
Fleet Operational Readiness	53,420	31,529	41,841	30,677	42,246	203,013	47,442	**450,169**
Shore Based Asset Readiness	11,564	12,744	13,759	11,580	13,052	55,539		**118,238**
Total	**79,765**	**58,927**	**73,273**	**56,008**	**75,319**	**292,878**	**61,148**	**697,319**

Table 20 : National Programs by Program Activity, 2011-2012 (thousands of dollars)

Program Activity	Fleet Services – Ships	Ice Reconnaissnace	Helicopters	Automatic Identification System	Marine Security Operations Centres	New Initiatives Fund	Research and Development	Total
Aids to Navigation Services							25	**25**
Waterways Management Services							75	**75**
Marine Communications and Traffic Services								
Icebreaking Services		8,700					50	**8,750**
Search and Rescue Services								
Environmental Response Services								
Maritime Security					4,857			**4,857**
Canadian Coast Guard College								
Fleet Operational Readiness	46,109		1,333					**47,442**
Shore Based Asset Readiness								
Total	**46,109**	**8,700**	**1,333**	**-**	**4,857**	**-**	**150**	**61,148**

Table 21 : CCG Vote-Netted Revenue Targets by Program Activity, 2011-2012 (thousands of dollars)

Program Activity	Marine Service Navigation Fees	Icebreaking Services	Marine Dredging Fee	CCG College Fees	Other	Total
Aids to Navigation Services	(4,767)					**(4,767)**
Waterways Management Services			(4,600)			**(4,600)**
Marine Communications and Traffic Services					(44)	**(44)**
Icebreaking Services		(2,409)				**(2,409)**
Canadian Coast Guard College				(1,700)		**(1,700)**
Fleet Operational Readiness					(22,033)	**(22,033)**
Shore Based Asset Readiness					(12,460)	**(12,460)**
Total	**(4,767)**	**(2,409)**	**(4,600)**	**(1,700)**	**(34,538)**	**(48,015)**

The following table summarizes Coast Guard's planned Major Capital spending over a five-year period. The planned expenditures are organized by major investment category in order to outline the distribution of CCG's long term major capital spending.

Table 22 : CCG Major Capital Budget and Planned Expenditure—Overview (thousands of dollars)

Investment Category	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	Total
Program Infrastructure						
Refit – Shore Based Infrastructure	25,000	25,000	25,000	25,000	25,000	**125,000**
Waterway Channel Restoration	3,815	3,815	3,815	3,815	3,090	**18,350**
Systems and Infrastructure	32,040	24,818	22,065	18,967	15,762	**113,653**
Total Program Infrastructure	**60,855**	**53,633**	**50,880**	**47,782**	**43,852**	**257,003**
Vessel Fleet						
Refit – Ships	66,155	59,650	64,400	64,400	59,400	**314,005**
Refit – Helicopters	5,600	5,600	5,600	5,600	5,600	**28,000**
Vessel Maintenance Management	6,500	6,500	6,500	6,500	6,500	**32,500**
Small Craft Replacement	5,000	5,000	5,000	5,000	5,000	**25,000**
Small Vessel Replacement	8,972	2,588	8,313	27,923	39,226	**87,022**
Vessel Systems and Technology Upgrades	2,200	2,254	–	–	–	**4,454**
Total Vessel Fleet	**94,427**	**81,592**	**89,813**	**109,423**	**115,726**	**490,981**
Procurement of Large Vessels						
Vessel Procurement	106,143	175,858	218,363	316,410	250,576	**1,067,351**
Project Management	9,268	7,383	5,189	4,000	4,000	**29,841**
Executive Direction & Project Control	5,500	5,500	5,500	5,500	5,500	**27,500**
Total Procurement of Large Vessels	**120,912**	**188,742**	**229,052**	**325,910**	**260,076**	**1,124,692**
Total Planned Spending	**276,194**	**323,967**	**369,746**	**483,116**	**419,654**	**1,872,676**

ANNEX A: CCG CAPITAL EXPENDITURES

The Canadian Coast Guard uses a wide range of equipment and other physical assets as it carries out its day-to-day activities. For example, search-and-rescue activities typically require rescue vessels or helicopters, as well as communications equipment; similarly, moving goods safely through Canadian waters depends on having reliable aids to navigation and may require the services of icebreakers.

The infrastructure required to support CCG activities falls into two broad groups:

- **Equipment and other moveable assets.** These include communications equipment, radio towers and radar sites, as well as aids to navigation such as buoys, beacons and environmental response equipment. These assets have an estimated replacement value of $1.5 billion.
- **Fleet assets.** These assets include 118 vessels — search and rescue lifeboats, fishery science vessels, patrol vessels, light and heavy icebreakers, etc. — and 22 helicopters. These assets have an estimated replacement value of $12.5 billion.

These assets need to be systematically maintained and eventually replaced in order to enable CCG to fulfill its mandate. This requires a long-term approach and significant financial resources, as capital expenditures account for a comparatively high percentage of our expenditures. Please note that the figures contained in the following pages may fluctuate throughout the fiscal year depending on availability of equipment and repair facilities and available funding: such as an emergency repair of a vessel as dictated by a Transport Canada inspection or the urgent requirement to repair a communication service/equipment related to search and rescue operations on a vessel or helicopter.

Like all Government of Canada departments and agencies, Coast Guard's assets must be organized in the context of a Program Activity Architecture. Although CCG only receives its capital funding through the Fleet Operational Readiness and Shore-Based Asset Readiness program activities, the expenditures do benefit other program activities.

ANNEX A: CCG CAPITAL EXPENDITURES

Program Activity	Examples of Expenditures	Forecast Expenditure 2011-2012 (millions of dollars)
Aids to Navigation	Refurbishing, modernizing, replacing shore-based and floating aids to navigation	13.0
Marine Communications and Traffic Services	Upgrading communications equipment at MCTS Centres and remote sites	22.3
Maritime Security	Developing critical vessel surveillance and tracking systems	6.2
Waterways Management	Restoring the Canadian portion of the Great Lakes connecting channels	3.8
Shore-Based Asset Readiness	Developing a national Operational Network for CCG systems and applications	4.4
Fleet Operational Readiness	Acquiring, replacing, refitting, modernizing fleet vessels and vessel systems	226.7
Total		**276.4**

CCG's investment requirements are generally addressed through funding from a variety of sources. For this planning cycle, the funding sources include:

- A-Base Major Capital Funding – CCG is provided with an annual Major Capital (Vote 5) Budget for investment in the Agency's infrastructure.
- External Funding Sources – when investment needs arise that exceed the annual Major Capital budget, CCG pursues special project-based funding from Cabinet.

As part of the Canadian Coast Guard's Integrated Investment Plan (IIP), all of the capital funding has been consolidated into a single major capital budget. The total Coast Guard capital budget for 2011-2012 is $255.7 million.

Most of the A-Base portion of the budget is divided in six budget envelopes, including:

- Refit – Vessels
- Refit – Helicopters
- Refit – Shore-Based Infrastructure
- Waterway Channel Restoration
- Vessel Maintenance Management
- Small Craft Replacement

Any A-Base funding not allocated to these budget envelopes is considered residual and will be used for other investments. Externally-sourced funds are normally restricted as controlled budgets and can only be used for their specific intended purposes.

For further information, please see the CCG Integrated Investment Plan which is available online at http://www.ccg-gcc.gc.ca/eng/CCG/Publications.

B ANNEX B:

Research and Development supports the technological response to challenges and opportunities identified as essential to implementing CCG activities. Research and Development projects generate the knowledge required to respond to an evolving operational environment, evolving client demands and broad-based adjustments to program structures. The ongoing projects for 2011-2012, listed below, have detailed deliverables that are required to achieve mission goals.

Project Code	Project Title	Total Estimated Cost ($000)	2011-2012 Funding ($000)
Waterways Management Services & Marine Communications and Traffic Services			
FMCF3	Under keel clearance module (A component of the Monitoring and Identification of Risks Integrated Tool (MIRIT)	391.4	**50.0**
Aids to Navigation			
FQAP6	Continuation of Synthetic Mooring Residual Strength Field Trial	33.0	**8.0**
Waterways Management Services			
MNW08	St. Lawrence River Water Level Forecasting Model with Ice Covers – Phase 1 (Literature review and feasibility study)	116.0	**17.0**
Icebreaking Services			
FVGV6	Ice Hazard Radar	401.0	**75.0**
		Total	**150.0**

ANNEX C:
CCG PROGRAM ACTIVITY ARCHITECTURE

The Program Activity Architecture (PAA) illustrates how we contribute to the department's *three* strategic outcomes:

1. **Economically Prosperous Maritime Sectors and Fisheries** is about contributing to the capacity of Canada's maritime sectors and fisheries to derive economic benefits and further enhancing their competitiveness, through departmental policies, programs and services, while supporting the sustainable and effective use of Canada's water resources.
2. **Sustainable Aquatic Ecosystems** is about the contribution of programs and policies to the conservation, protection, and sustainability of Canada's aquatic ecosystems through the management of risks that affect species, oceans and fish habitats.
3. **Safe and Secure Waters** is about contributing to maintaining and improving maritime safety and security through the provision of maritime infrastructure, information, products and services necessary to ensure safe navigation and the protection of life and property.

The following chart illustrates the relationship among the three strategic outcomes and CCG's program activities and sub-activities.

1. STRATEGIC OUTCOME:
Economically Prosperous Maritime Sectors and Fisheries

Program Activities

1.8 WATERWAYS MANAGEMENT
1.9 AIDS TO NAVIGATION
1.10 ICEBREAKING SERVICES

2. STRATEGIC OUTCOME:
Sustainable Aquatic Ecosystems

Program Activity

2.6 ENVIRONMENTAL RESPONSE SERVICES

3. STRATEGIC OUTCOME:
Safe and Secure Waters

Program Activities

3.1 SEARCH AND RESCUE SERVICES

Program Sub-Activities

3.1.1 SEARCH AND RESCUE COORDINATION AND RESPONSE
3.1.2 CANADIAN COAST GUARD AUXILIARY

3.2 MARINE COMMUNICATIONS AND TRAFFIC SERVICES
3.3 MARITIME SECURITY
3.4 FLEET OPERATIONAL READINESS

Program Sub-Activities

3.4.1 FLEET OPERATIONAL READINESS
3.4.2 FLEET MAINTENANCE
3.4.3 FLEET PROCUREMENT

3.5 SHORE-BASED ASSET READINESS
3.6 CANADIAN COAST GUARD COLLEGE

ANNEX D:

AUDITOR GENERAL'S RECOMMENDATIONS (2000 AND 2002): CROSSWALK TO 2011-2012 BUSINESS PLAN COMMITMENTS

In its 2007 Status Report, the Auditor General found that the Coast Guard had not made satisfactory progress addressing recommendations from previous audits on the Fleet (2000) and Marine Navigational Services (2002). The Auditor General noted that one of the contributing factors was that the Coast Guard had tried to deal with all of the previous recommendations simultaneously and, as a result, had not been able to address any satisfactorily.

The 2007 Report outlined the following recommendations for the Coast Guard: focus on establishing priorities for improvement; set clear achievable goals for those priority areas; allocate sufficient, appropriate resources; and plan and implement the changes by holding managers and organizational units accountable for results. The Canadian Coast Guard committed to using the business planning process to establish priorities for improvement in the context of delivering its programs and services.

In its "Managing the Coast Guard Fleet and Marine Navigational Services – Fisheries and Ocean Canada" Report, dated April 2008, the Senate Committee on Public Accounts (SCOPA) recommended that the Coast Guard Business Plan include an appendix cross-referencing the Plan's commitments with the Auditor General's findings. This Annex responds to that SCOPA recommendation.

Listed below are the Auditor General's 2000 and 2002 recommendations followed by the 2011-2012 Business Plan commitments which are linked to these recommendations. In a few instances, there are certain actions led by the Coast Guard which are not specific commitments within the Business Plan.

AUDITOR GENERAL'S RECOMMENDATIONS – 2000

1. The Department should review how the fleet fits into its current organizational and accountability structure and take measures to ensure that the fleet can operate in a cost-effective manner (paragraph 31.72)
   - Fair and Effective Management
     - Continue transition to Standard Organization
   - Completed and ongoing.
2. The Department should address the weaknesses associated with its key fleet management processes, including:

   a) Establishing clear, concrete and realistic program performance expectations that include a long-term perspective.
   - **Service Level Agreements with DFO Clients**
     - Develop performance measures within Service Level Agreement pilot between Fleet and Maritime Services
   - Completed and ongoing.

   b) Establishing a long-term fleet planning and funding horizon
     - See commitments under Recommendation 3
   - Completed and ongoing.

   c) Developing service accords between the programs and the fleet
   - **Service Level Agreements with DFO Clients**
     - In 2008-2009, the Canadian Coast Guard developed Service Level Agreements (SLAs) between Fleet and DFO Oceans and Science Sector and DFO Ecosystems and Fisheries Management Sector – Conservation and Protection. In 2009-2010, implementation of these SLAs began as a pilot project that included the development, testing, and modification of effective performance measures. In 2011-2012, the SLAs will be finalized for use on an ongoing basis
   - Completed and ongoing.

   d) Establishing budgetary processes that support accountability
   - Completed.

   e) Setting up integrated information systems to enable the Department to monitor and account for the actual performance of the fleet in terms of service and cost.
   - Completed.

   f) Implementing costing policies that support the use of the lowest-cost alternative in acquiring service while meeting departmental objectives (paragraph 31.73)
   - Completed.
3. The Department should consider a longer-term strategy to renew its aging fleet. Such a strategy should take into consideration the changing nature of program requirements, the impact of technological change and the potential for alternative means of acquiring the service needed (paragraph 31.106)
   - **Coast Guard's Fleet Renewal Initiatives**
     - National Shipbuilding Procurement Strategy

    - Coast Guard's Fleet Renewal Plan
        - Deliver the first Mid-Shore Patrol Vessel
        - Operationalize and support delivery of the first Mid-Shore Patrol Vessel in C&A Region
        - Complete design of the Offshore Fisheries Science Vessels (OFSV)
        - Seek Treasury Board Effective Project Approval and authority to contract for construction of OFSV under the National Shipbuilding Strategy
        - Complete design of the Offshore Oceanographic Science Vessel (OOSV)
        - Seek Treasury Board Effective Project Approval and authority to contract for construction of OOSV under the National Shipbuilding Strategy
        - Award the contract for the design of the Polar Icebreaker
        - Manage construction of the Air Cushion Vehicle
- ■ Completed and ongoing.
- ■ **Project Management Framework**
    - Develop a Project Management Framework for CCG procurement
    - Develop an action plan to implement the Project Management Framework
- ■ Completed and ongoing.

4. The Department should complete the development and implementation of lifecycle management policies and procedures for its fleet (paragraph 31.107)

- ■ **Improve Asset Maintenance**
    - Prioritize technical training requirements and establish learning objectives
    - Expand distribution and use of Maintelligence for maintenance management and inventory control
    - Deploy MAXIMO version 7
    - Deliver MAXIMO training sessions on MAXIMO version 7 to regional ITS staff
    - Deliver MAXIMO training sessions on MAXIMO version 7 to HQ ITS staff
    - Expand distribution and use of Maintelligence for maintenance management and inventory control
- ■ Completed and ongoing.

5. The Department should ensure that the fleet activity is supported by information systems that produce integrated, timely, reliable and relevant information (paragraph 31.108)

- ■ **Ongoing Improvements in Fleet Management**

6. The Department should develop a human resource strategy for the fleet to address the need to maintain the skills and knowledge of ship-based personnel and to ensure that a sufficient number of qualified officers and crew are available in the future. The strategy should consider a long-term approach to the collective agreements with ship's personnel so that they can be administered in an efficient and economical manner and can support the fleet's operational requirements (paragraph 31.137).

- ■ **Workforce Management**

  Through CCG's Strategic Human Resources Plan, a number of strategies, initiatives and frameworks are being put into place to address key organizational needs:

    - A Qualified and Representative Workforce

  - Evaluate effectiveness of the revamped Careers page on the CCG Website
  - Implement the Third Class Engineer Certification module of the Ships' Crew Certification Program
  - Implement CCG commitments stemming from the new 2011–2014 DFO Employment Equity Management Action Plan
  - Implement the Operational Women's Network
  - Participate in an Aboriginal Bridging Pilot Project to recruit students into the Canadian Coast Guard Officer Training Program
- Develop and Support People
  - Implement ENG-03 Coaching and Mentoring Program
  - Launch the CCG Orientation Program for all new employees
  - Implement the Continuous Proficiency Training (Refresher) Course for MCTS Officers
  - Develop the expansion of the Leadership Development Pilot Program to include the Canadian Coast Guard College and the National Capital Region
  - Provide opportunities to improve College employees' official language competencies
- Fair and Effective Management
  - Continue transition to Standard Organization
  - Evaluate the Performance Review System and develop an action plan to improve its effectiveness
  - Continue implementation of the Coast Guard College Transformation Plan
  - Develop a CCG operational training governance framework

- Completed and ongoing.
- **Fleet Operational Capability** – Human Resources Initiatives
- Completed and ongoing.

7. The Department should regularly analyze payroll costs related to the fleet and take action to control such costs, where necessary (paragraph 31.138)
   - Complete and Ongoing.

AUDITOR GENERAL'S RECOMMENDATIONS – 2002[7]

8. The Canadian Coast Guard should ensure that there are up-to-date national policies, standards and levels of service expectations for its navigational support services. It should also develop the capability to monitor the implementation of these policies, standards, and expectations. (paragraph 2.53)
   - Levels of Service Review
     - Completed.
   - Aids to Navigation 21st Century (AToN21)
     - Completed.
   - Search and Rescue Needs Analysis
     - Completed and ongoing. Example of ongoing work – development of a new SAR needs analysis methodology that includes a risk management framework.

---

[7] Note: a number of the Auditor General Recommendations are no longer identified in the CG Business Plan as they are completed and/or ongoing. The work being done no longer requires a business plan commitment. They have been presented here for continuity purposes only.

9. For its navigational support services and boating safety activities, Fisheries and Oceans Canada should do the following[8]:

a) Complete the implementation of its results-based management and accountability frameworks;

- Strategic Program Framework for CCG's Maritime Services
  - Completed and ongoing.

b) Establish clear, measurable, concrete targets for the identified outputs and immediate outcomes for each framework;

- Completed.

c) Identify who is accountable for achieving targets and managing resources;

- Completed.

d) Align budgeting and resource allocation with the frameworks; and

- Completed.

e) Develop or identify sources of information to measure results (paragraph 2.68)

- Completed and ongoing – type and quality of data are reviewed annually.

10. The Coast Guard should complete and implement its draft guidance on risk management (paragraph 2.73)

- Completed and ongoing – CCG and DFO risk profiles are updated regularly and mitigation strategies are integrated into business planning.

11. Fisheries and Oceans Canada should develop and implement strategies to modernize and integrate the delivery of its navigational support services to meet user needs (paragraph 2.77)

- e-navigation
  - Ongoing with implementation of federal vision and strategy for e-navigation
  - Examples of ongoing work: gap analysis assessment of the various e-navigation data sources and services; development of a national e-navigation portal and collaboration on the work on the e-navigation phase II project – evaluation of a dynamic under keel clearance system developed by external firms, for use in the St. Lawrence River shipping channel
  - Completed and ongoing.
- AToN21
  - Completed.
- Marine Services Fees
  - Options have been prepared and are ready for presentation for government decision.

12. Fisheries and Oceans Canada should develop and implement an overall strategy for the future of its light stations, considering maritime safety and heritage objectives (paragraph 2.90)

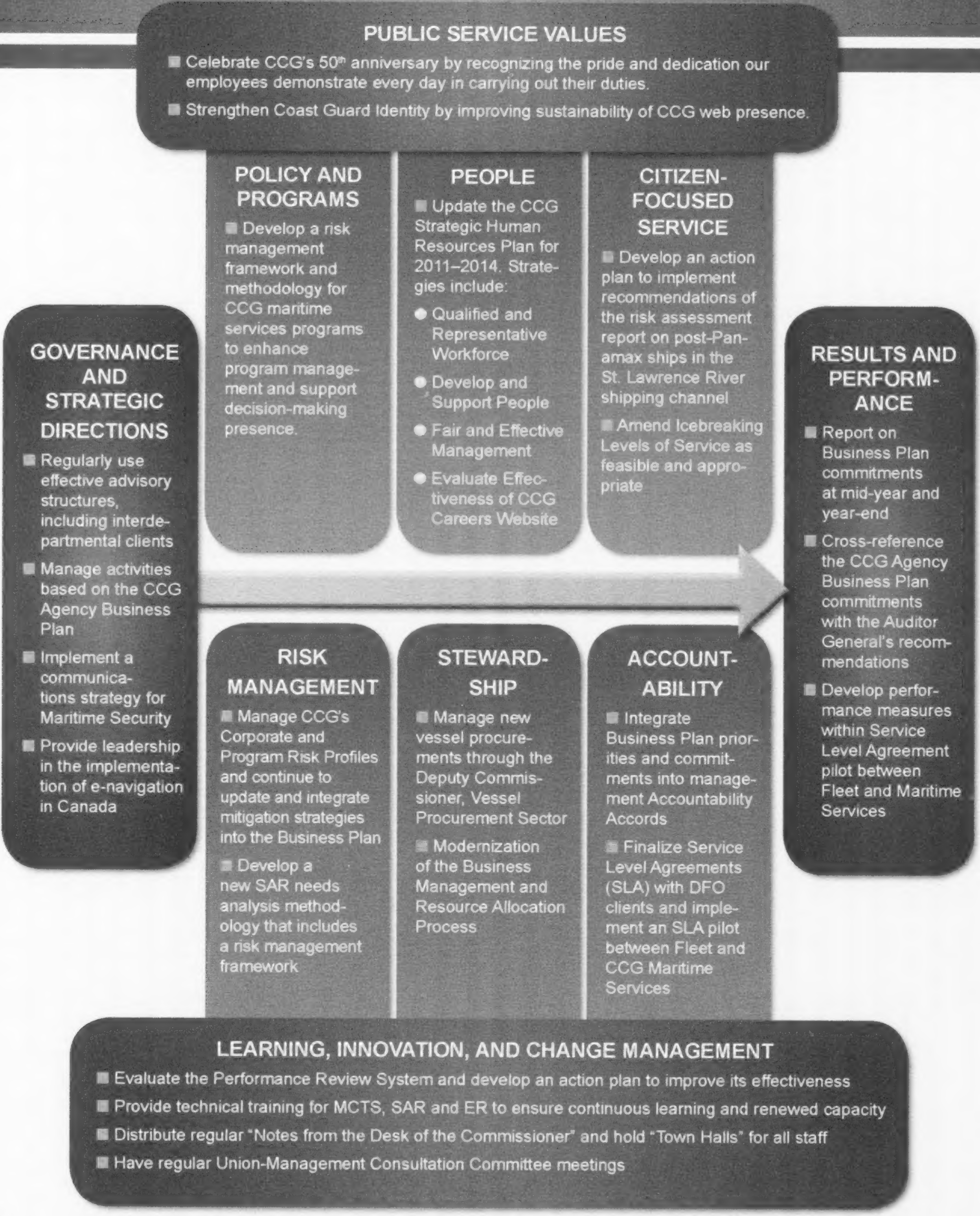
- Completed.

---

[8] *Note: the boating safety activities (Office of Boating Safety) were transferred to Transport Canada in 2003.*

ANNEX E: MANAGEMENT AGENDA

The Coast Guard has a clear management agenda that is consistent with the broader Management Accountability Framework (MAF) that applies to all departments and agencies (http://www.tbs-sct.gc.ca/maf-crg/index-eng.asp). The following chart lists some of the initiatives and activities that the Coast Guard is undertaking over the next three years that relate to the 10 elements of the MAF.



PUBLIC SERVICE VALUES

- Celebrate CCG's 50th anniversary by recognizing the pride and dedication our employees demonstrate every day in carrying out their duties.
- Strengthen Coast Guard Identity by improving sustainability of CCG web presence.

GOVERNANCE AND STRATEGIC DIRECTIONS

- Regularly use effective advisory structures, including interdepartmental clients
- Manage activities based on the CCG Agency Business Plan
- Implement a communications strategy for Maritime Security
- Provide leadership in the implementation of e-navigation in Canada

POLICY AND PROGRAMS

- Develop a risk management framework and methodology for CCG maritime services programs to enhance program management and support decision-making presence.

PEOPLE

- Update the CCG Strategic Human Resources Plan for 2011–2014. Strategies include:
  - Qualified and Representative Workforce
  - Develop and Support People
  - Fair and Effective Management
  - Evaluate Effectiveness of CCG Careers Website

CITIZEN-FOCUSED SERVICE

- Develop an action plan to implement recommendations of the risk assessment report on post-Panamax ships in the St. Lawrence River shipping channel
- Amend Icebreaking Levels of Service as feasible and appropriate

RISK MANAGEMENT

- Manage CCG's Corporate and Program Risk Profiles and continue to update and integrate mitigation strategies into the Business Plan
- Develop a new SAR needs analysis methodology that includes a risk management framework

STEWARDSHIP

- Manage new vessel procurements through the Deputy Commissioner, Vessel Procurement Sector
- Modernization of the Business Management and Resource Allocation Process

ACCOUNTABILITY

- Integrate Business Plan priorities and commitments into management Accountability Accords
- Finalize Service Level Agreements (SLA) with DFO clients and implement an SLA pilot between Fleet and CCG Maritime Services

RESULTS AND PERFORMANCE

- Report on Business Plan commitments at mid-year and year-end
- Cross-reference the CCG Agency Business Plan commitments with the Auditor General's recommendations
- Develop performance measures within Service Level Agreement pilot between Fleet and Maritime Services

LEARNING, INNOVATION, AND CHANGE MANAGEMENT

- Evaluate the Performance Review System and develop an action plan to improve its effectiveness
- Provide technical training for MCTS, SAR and ER to ensure continuous learning and renewed capacity
- Distribute regular "Notes from the Desk of the Commissioner" and hold "Town Halls" for all staff
- Have regular Union-Management Consultation Committee meetings

LIST OF ACRONYMS

A-Base	2006 A-Base Review
AC	Assistant Commissioner
ACV	Air Cushion Vehicle
AG	Auditor General
AIS	Automatic Identification System
ACV	Air Cushion Vehicle
AMS	Asset Management System
AToN21	Aids to Navigation of the 21st Century
AWPPA	Arctic Waters Pollution Prevention Act
BIO	Bedford Institute of Oceanography
C&A	Central and Arctic
C&P	Conservation and Protection
CCG	Canadian Coast Guard
CCGA	Canadian Coast Guard Auxiliary
CCGS	Canadian Coast Guard Ship
CCGC	Canadian Coast Guard College
CCGOTP	CCG Officer Training Program
CEPA	Canadian Environmental Protection Act
CESD	Commissioner of the Environment and Sustainable Development
CHS	Canadian Hydrographic Service
COHS	Centre for Occupational Health and Safety
DC	Deputy Commissioner
DFO	Fisheries and Oceans Canada
DG	Director General
DGPS	Differential Global Positioning System
DND	Department of National Defence
DOT	Department of Transport
EAP	Economic Action Plan
EC	Environment Canada
ED	Executive Director
EEMAP	Employment Equity Management Action Plan
EFM	Ecosystems and Fisheries Management
EPA	Effective Project Approval
ER	Environmental Response
FAIS	Fleet Activity Information System
FOR	Fleet Operational Readiness
FTE	Full-Time Equivalent
HSE	Health, Safety and Environmental
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
IAMSAR	International Aeronautical and Maritime SAR

IBMS	Integrated Business Management Services
IIP	Integrated Investment Plan
IMO	International Maritime Organization
IMPC	Interdepartmental Marine Pollution Committee
INNAV	Information System on Marine Navigation
IRB	Inshore Rescue Boat
ITS	Integrated Technical Services
JRCC	Joint Rescue Coordination Centre
LCAMS	Lifecycle Asset Management Services
LED	Light-emitting Diode
LNG	Liquefied Natural Gas
LOS	Levels of Service
LRIT	Long Range Identification and Tracking
MAF	Management Accountability Framework
MB	Management Board
MCP	Major Crown Projects
MCTS	Marine Communication and Traffic Services
MCTSO	Marine Communication and Traffic Services Officer
MMET	Marine Maintenance and Equipment Training
MOSH	Marine Occupational Safety and Health Regulations
MRRS	Management Resources and Results Structure
MRSC	Marine Rescue Sub-Centre
MS	Maritime Services
MSET	Marine Security Enforcement Team
MSOC	Marine Security Operations Centre
MSPV	Mid-Shore Patrol Vessels
NACGF	North Atlantic Coast Guard Forum
NAFO	Northwest Atlantic Fisheries Organization
NAVAREA	Navigational Area
NCC	National Coordination Centre
NL	Newfoundland and Labrador
NMAB	National Marine Advisory Board
NORDREG	*Northern Canada Vessel Traffic Services Zone Regulations*
NOTMAR	Notices to Mariners
NOTSHIP	Notices to Shipping
NPCGF	North Pacific Coast Guard Forum
NSPS	National Shipbuilding Procurement Strategy
O&M	Operations and Maintenance
OAG	Office of the Auditor General
OFSV	Offshore Fishery Science Vessels
OGD	Other Government Departments
OHS	Occupational Health and Safety
OOSV	Offshore Oceanographic Science Vessel
PAA	Program Activity Architecture
PRS	Performance Review System
PSEA	*Public Service Employment Act*

PSES	Public Service Employee Survey
PWGSC	Public Works and Government Services Canada
RAMN	Radio Aids to Marine Navigation
R&D	Research and Development
RCMP	Royal Canadian Mounted Police
ROC	Regional Operations Centre
RMAB	Regional Marine Advisory Board
SAC	Strategic Advisory Council
SAR	Search and Rescue
SBAR	Shore-based Asset Readiness
SC	Ships' Crew
SCOPA	Standing Committee on Public Accounts
SLA	Service Level Agreement
SMS	Safety Management System
SO	Standard Organization
SOA	Special Operating Agency
SOLAS	International Convention for the Safety of Life at Sea
SOP	Standard Operating Procedures
SPAC	Senior Project Advisory Committee
SPF	Strategic Program Framework
TC	Transport Canada
TEU	Twenty Foot Equivalent Unit
TSC	Technical Solution Centre
UNCLOS	United Nations Convention on the Law of the Sea
USCG	United States Coast Guard
VHF	Very High Frequency
VMMR	Vessel Maintenance Management Review
VNR	Vote Netted Revenue
VP	Vessel Procurement
VTS	Vessel Traffic Services

INDEX

A

A-Base Review • vii, 9, 113

Aids to Navigation • 9, 12, 17, 19, 20, 33, 35, 37, 38, 39, 41, 42, 44, 45, 46, 47, 72, 76, 77, 79, 84, 93, 95, 96, 98, 99, 100, 102, 103, 104, 105, 109, 113

Air Cushion Vehicle • 12, 14, 16, 76, 77, 80, 81, 82, 83,108

Arctic • v, 1, 2, 3, 4, 8, 10, 11, 19, 20, 21, 22, 23, 35, 36, 37, 39, 43, 46, 47, 49, 51, 56, 57, 58, 59, 60, 62, 63, 65, 67, 69, 70, 72, 73, 74, 75, 78, 79, 80, 81, 85, 92, 93, 96, 98, 99, 113

Asset Maintenance • 9, 17, 18, 79, 83, 85, 86, 108

Asset Renewal • v, 11, 12, 17, 79, 86

Auditor General • vii, 7, 9, 17, 106, 107, 108, 109, 110, 112, 114

Automatic Identification System • 10, 11, 46, 54, 71, 72, 73, 74, 93, 100, 113

AVADEPTH • 25, 51

B

Brigadier General M. G. Zalinski • 67, 70

C

Canada Shipping Act • 1, 36, 53, 84

Canadian Coast Guard Auxiliary • 2, 6, 9, 21, 61, 62, 63, 64, 65, 105, 113

Canadian Coast Guard College • viii, 5, 8, 26, 28, 29, 41, 42, 89, 90, 91, 98, 99, 100, 105, 109, 113

Canadian Hydrographic Service (CHS) • 25, 37, 50, 72, 113

Canadian Ice Service • 58

Cape Class Search and Rescue 47-foot Motor Lifeboats • 12, 40

Capital Expenditures • vii, 102, 103

Casualty Tracking System (CasTrack) • 40

CCG 50th Anniversary • v, 11, 34, 112

Central and Arctic Region • 3, 4, 35, 36, 37, 39, 43, 46, 47, 49, 51, 56, 60, 62, 65, 70, 73, 80, 81, 85, 98, 99

Coast Guard Identity • 9, 32, 33, 112

Conservation & Protection • viii, 32, 38, 72, 74, 77, 84, 105, 107, 113

Consistent Business Management Practices • v, 11, 32

D

Department of National Defence • 3, 19, 39, 61, 66, 76, 78, 113

DFO Ecosystems and Fisheries Management • 32, 33, 77, 107, 113

DFO Oceans and Science Sector • 32, 33, 77, 107, 113

E

Economic Action Plan • 9, 12, 16, 39, 94, 95, 96, 97, 113

e-navigation • v, 8, 9, 10, 11, 25, 40, 46, 51, 110, 112

Environment Canada • 3, 23, 25, 50, 51, 54, 58, 67, 68, 76, 78, 113

Environmental Response • v, 6, 8, 9, 11, 12, 16, 17, 21, 22, 23, 28, 33, 39, 40, 41, 42, 53, 67, 68, 69, 70, 76, 77, 79, 89, 92, 98, 99, 100, 102, 105, 113

Environmental Response Barges • 12, 16, 17

F

Financial Information • vii, 10, 43, 90, 95, 96, 97, 98, 99, 100, 101

Fleet Activity Information System (FAIS) • 82, 113

Fleet Operational Readiness • 8, 41, 42, 47, 51, 56, 60, 65, 70, 73, 76, 77, 79, 81, 90, 98, 99, 100, 102, 103, 113

Fleet Renewal • 8, 9, 12, 13, 14, 77, 79, 83, 96, 107

H

Health of the Oceans • 21, 67, 69

Heavy icebreaker • 16, 20, 96, 102

Human Resources • v, vii, 5, 8, 26, 30, 32, 41, 55, 82, 108, 109, 112

I

Icebreaking • viii, 1, 2, 6, 8, 33, 41, 42, 58, 59, 60, 76, 77, 79, 94, 95, 98, 99, 100, 104, 105, 112

iFleet • 82

Information System on Marine Navigation (INNAV) • 12, 114

Inshore Rescue Boat • 35, 61, 114

Integrated Investment Plan • v, vii, 13, 17, 77, 96, 97, 103, 114

Integrated Technical Services • 3, 4, 14, 31, 45, 50, 53, 54, 59, 69, 72, 76, 77, 84, 91, 98, 114

International Activities • 92

International Maritime Organization • 20, 25, 40, 54, 57, 68, 72, 75, 93, 114

L

Levels of Service • 8, 16, 33, 45, 46, 47, 51, 54, 55, 59, 60, 65, 95, 96, 109, 112, 114

Lifecycle Asset Management Services • 84, 114

Long Range Identification and Tracking • 10, 21, 71, 72, 73, 74, 75, 114

Long-Term Plan for Shore-based Infrastructure • 13, 17, 86

Loran-C Infrastructure Removal • 86

M

Management Accountability Framework • 34, 111, 114

Management Agenda • 111, 112

Management Board • 82, 87, 114

Management Priorities • v, vii, 11

Management Structure • 4

Marine Communication and Traffic Services • 1, 6, 8, 9, 12, 17, 19, 26, 27, 28, 35, 39, 40, 41, 42, 53, 55, 56, 57, 75, 77, 79, 84, 89, 98, 99, 100, 103, 104, 105,114

Marine Security Enforcement Team • 9, 10, 39, 71, 73, 114

Marine Security Operations Centre • 9, 10, 53, 71, 72, 74, 100, 114

MarInfo • 25, 35, 50, 51

Maritime Security • v, 3, 4, 6, 10, 11, 14, 24, 41, 42, 71, 72, 73, 75, 76, 77, 78, 79, 92, 98, 99, 100, 103, 105, 112

Maritime Services • vii, viii, 3, 4, 9, 10, 19, 22, 31, 32, 33, 34, 44, 50, 53, 58, 59, 61, 68, 72, 76, 84, 98, 107, 110, 112, 114

Maritimes Region • 14, 35, 36, 38, 43, 46, 47, 49, 51, 56, 58, 60, 65, 70, 73, 80, 81, 85, 98, 99, 114

Mid-Shore Patrol Vessel • 12, 14, 39, 73, 81, 93, 96, 107, 108, 114

N

National Shipbuilding Procurement Strategy • 13, 15, 79, 107, 114

National Standard Operating Procedures • 74. 114

NAVAREAs • 8, 20, 39, 53, 57, 97, 114

Near-Shore Fisheries Science Vessel • 12, 16, 17

Newfoundland and Labrador Region • 3, 4, 35, 37, 43, 46, 47, 49, 51, 56, 60, 65, 70, 73, 80, 81, 85, 86, 98, 99

Northern Strategy • v, 19, 20, 21

Northwest Atlantic Fisheries Organization • 35, 38, 41, 78, 98, 114

Notice to Mariners (NOTMAR) • 44, 47, 114

O

Officer Training Program • 27, 28, 29, 89, 90, 91, 109, 113

Offshore Fisheries Science Vessel • 14, 15, 108, 114

Offshore Oceanographic Science Vessel • 12, 14, 15, 108, 114

Operation Nanook • 19, 21, 37, 39, 92, 114

Operational Women's Network • 26, 27, 82, 109

P

Pacific Region • 3, 4, 12, 14, 25, 35, 37, 39, 40, 43, 46, 47, 49, 51, 56, 60, 70, 73, 80, 81, 85, 86, 87, 92, 98, 99

Polar Icebreaker • 12, 13, 14, 16, 20, 96, 108

Post-Panamax Study • 8, 9, 52

Prince Rupert Port Authority • 40

Procurement of New and Replacement Vessels • 8, 9, 10, 12, 14, 79, 81

Program Activity Architecture • 5, 102, 105, 115

Project Management Framework • 14, 108

Public Safety Canada • 3, 23, 67, 68

Public Service Employee Survey • vii, 30, 115

Public Works and Government Services Canada (PWGSC) • 40, 50, 115

Q

Quebec Region • 3, 4, 14, 25, 35, 36, 38, 43, 46, 47, 49, 51, 52, 56, 60, 65, 70, 73, 80, 81, 85, 88, 98

R

Reinvestment in the Asset Base • 47, 52, 57, 70, 75, 88

Royal Canadian Mounted Police • 3, 14, 36, 39, 76, 78, 115

S

Search and Rescue • viii, 1, 2, 6, 12, 16, 19, 21, 28, 33, 35, 37, 39, 40, 41, 42, 53, 61, 63, 64, 65, 66, 75, 76, 77, 79, 81, 89, 93, 98, 99, 100, 102, 105, 109, 115

Service Level Agreement • 8, 32, 33, 53, 54, 74, 76, 81, 85, 88, 107, 112

Shore-based Asset Readiness • 41, 42, 47, 51, 56, 60, 65, 70, 73, 84, 85, 86, 88, 90, 102, 103, 105, 115

Small Craft Harbour in Pangnirtung, Nunavut • 20, 39, 45, 46

Standard Organization • 28, 30, 107, 109, 115

Strategic Human Resources Plan • v, vii, 26, 55, 108, 112

Strategic Priorities • v, 32

Strategic Program Framework • v, 9, 10, 11, 34, 110, 115

T

Transport Canada • 2, 3, 5, 23, 25, 37, 39, 48, 52, 54, 67, 68., 72, 76, 82, 84, 90, 102, 109, 115

U

United States Coast Guard • 23, 36, 39, 54, 59, 67, 86, 92, 115

V

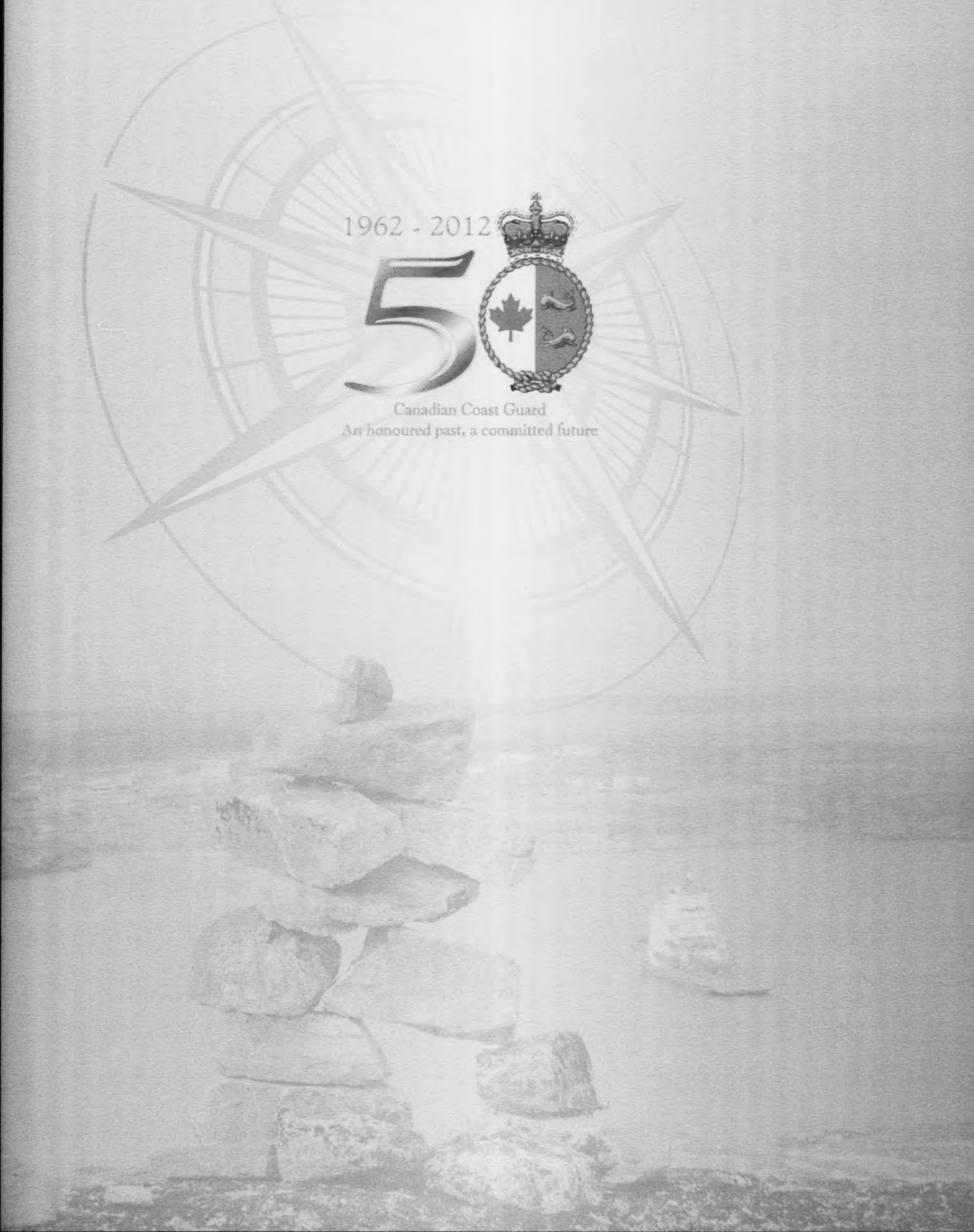
Vessel Maintenance Management • 17, 18, 101, 103, 115

Vessel Procurement • 3, 4, 5, 13, 14, 77, 83, 97, 98, 101, 112, 115

W

Waterways Management • 41, 42, 48, 50, 51, 76, 77, 98, 99, 100, 103, 104, 105

Workforce Management • v, 11, 26, 108



1962 - 2012

Canadian Coast Guard
An honoured past, a committed future